SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

Customer:		**Tested By:**	R. Combs
SO No:		**Temperature:**	+25°C
Model No:	PTRAN-100M18G-SFB-3UVPX-10HP-MAH	**Date:**	1/7/17
Serial No:	PL20394/1702	**Drawing No:**	27624282 **Rev:** A1

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
		J1 RF Receive Input		
1	Frequency	100MHz-18GHz	**100MHz-18GHz**	PMI QA 2
2	Input Power Level	-80 dBm to -10 dBm	**-80dBm to -10dBm**	
		J4A IF1 Input		
3	Frequency	100MHz-4GHz	**100MHz-4GHz**	
4	Input Power Level	0 dBm Typical	**0dBm**	
		J4B IF2 Input		
5	Frequency	100MHz-4GHz	**100MHz-4GHz**	
6	Input Power Level	0 dBm Typical	**0dBm**	
		J9 LO1 Input		
7	Frequency	4GHz-20GHz	**4GHz-20GHz**	
8	Input Power Level	+10 dBm Typ.	**+10dBm**	
		J10 LO2 Input		
9	Input Frequency	4GHz-20GHz	**4GHz-20GHz**	
10	Input Power Level	+10 dBm Typ.	**+10dBm**	PMI QA 2

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SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
		J3A IF1 Output		
11	Output Frequency	100MHz - 4GHz	**100MHz - 4GHz**	PMI QA 2
12	Output Power Level	0dBm Typical for Limited SDLVA channels	**-2.6dBm to +5.5dBm See Plots**	
		J3B IF2 Output		
13	Output Frequency	100MHz - 4GHz	**100MHz - 4GHz**	
14	Output Power Level	0dBm Typical for Limited SDLVA channels	**-2.5dBm to +5.4dBm See Plots**	
		J6 RF Transmit Output		
15	Output Frequency	100MHz-18GHz	**100MHz-18GHz**	
16	Output Power Level	0dBm to +10dBm Typical with use of variable attenuator in Down-Converted Channel	**-0.8dBm to +4.4dBm See Plots**	
		Control Logic – TTL		
17	**TTL 1** Transmit Path Output Select / Receive Filter Bank Input Select	0 – Output to TX Filter bank, RX-Backplane/Input (J1) 1 – Output to RX Filter bank, RX-Transceiver Input	**0 – Output to TX Filter bank, RX Backplane/Input (J1)** **1 – Output to RX Filter bank, RX-Transceiver Input**	PMI QA 2

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PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
18	**TTL 2** RF Receive Filter Select	000 – Thru Channel 001 – Channel 1 010 – Channel 2 011 – Channel 3 100 – Channel 4 101 – Channel 5 110 Not Defined 111 – Not Defined	**000 – Thru Channel** **001 – Channel 1** **010 – Channel 2** **011 – Channel 3** **100 – Channel 4** **101 – Channel 5** **110 Not Defined** **111 – Not Defined**	PMI QA 2
19	**TTL 3** Linear or Limited SDLVA RF Output Channel	0 - Limited RF Output Channel 1 - Linear RF Output Channel	**0 – Limited RF Output Channel** **1 – Linear RF Output Channel**	
20	**TTL 4** RF Receive Thru Channel Or Down-Converted Channel.	0 - .Thru Channel 1 - Down-Converted Channel	**0 - Thru Channel** **1 – Down-Converted Channel**	
21	**TTL 5** IF1 or IF2 Output Select	0 – IF1 Output Channel 1 – IF2 Output Channel	**0 – IF1 Output Channel** **1 – IF2 Output Channel**	
22	**TTL 6** IF1 or IF2 Input Select	0 – IF1 Input Chan. 1 – High Freq. Chan.	**0 – IF1 Input Channel** **1 – IF2 Input Channel**	
23	**TTL 7** RF Transmit Thru Channel or Down-Converted Channel	0 – Thru Channel 1 – Down-Converted Channel	**0 – Thru Channel** **1 – Down-Converted Channel**	PMI QA 2

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PL20394/1702

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
24	**TTL 8** RF Transmit Filter Select 3 BIT Control	000 – Thru Channel 001 – Channel 1 010 – Channel 2 011 – Channel 3 100 – Channel 4 101 – Channel 5 110 Not Defined 111 – Not Defined	**000 – Thru Channel** **001 – Channel 1** **010 – Channel 2** **011 – Channel 3** **100 – Channel 4** **101 – Channel 5** **110 Not Defined** **111 – Not Defined**	PMI QA 2
25	**TTL9** RF Transmit Down-Converted Channel 5 BIT Attenuation Control	00000 – 0 dB Attenuation 11111 – 31 dB Attenuation	**00000 – 0 dB Attenuation** **11111 – 31 dB Attenuation**	
26	**TTL10** LO1 LO2 Select 2 BIT Control	00 M1–LO1 M2-LO1 01 M1–LO1 M2-LO2 10 M1–LO2 M2-LO1 11 M1–LO2 M2-LO2	**00 M1–LO1 M2-LO1** **01 M1–LO1 M2-LO2** **10 M1–LO2 M2-LO1** **11 M1–LO2 M2-LO2**	
27	**TTL11** SDLVA Threshold Adjust 6 BIT Control	000000 – Lowest Threshold Level 111111 – Highest Threshold Level	**000000 – Lowest Threshold Level** **111111 – Highest Threshold Level**	
28	**TTL12** SDLVA CTL A (ENABLE)	0 – Internal Comparator Triggered SPST 1 – External Trigger Enable (SW CTL B)	**0 – Internal Comparator Triggered SPST** **1 – External Trigger Enable (SW CTL B)**	
29	**TT13** SDLVA CTL B (TRIGGER)	0 - Limited RF Channel SPST Switch ON (Insertion Loss) 1 - Limited RF Channel SPST Switch OFF (Isolation)	**0 - Limited RF Channel SPST Switch ON (Insertion Loss)** **1 - Limited RF Channel SPST Switch OFF (Isolation)**	PMI QA 2

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SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

30	Power Supply	+12V -12V +5V +3.3V	**+12V @ 1.3 A** **-12V @ 837 mA** **+5V @ 570 mA** **+3.3V @ 6 mA**	PMI QA 2
Receive and Transmit Switched Filter Bank (PL20382, See Appendix A)				
Transceiver Module (PL20388, See Appendix B)				
SDLVA (PL20376, See Appendix C)				

QA/QC Approval: PMI QA 2 **Date:** 3/7/17

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SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

RF Receive Input (J1) To IF1 Output (J3A) Thru Channel (-10dBm Input)

RF Receive Input (J1) To IF1 Output (J3A) Thru Channel (-70dBm Input)

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SUMMARY TEST DATA
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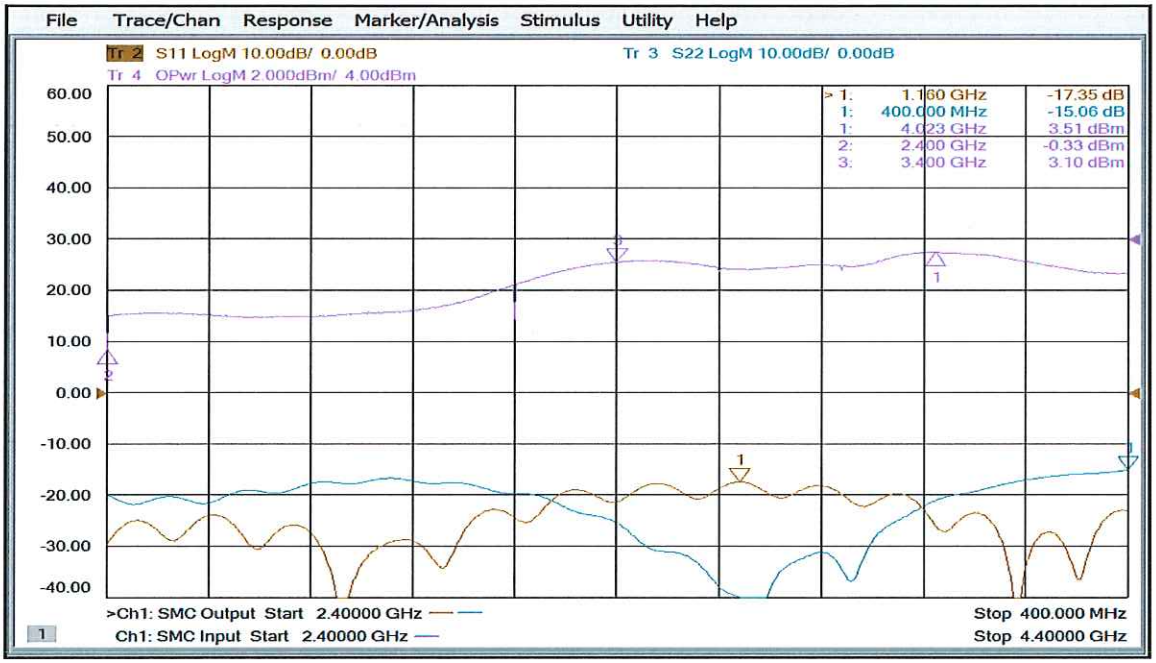
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

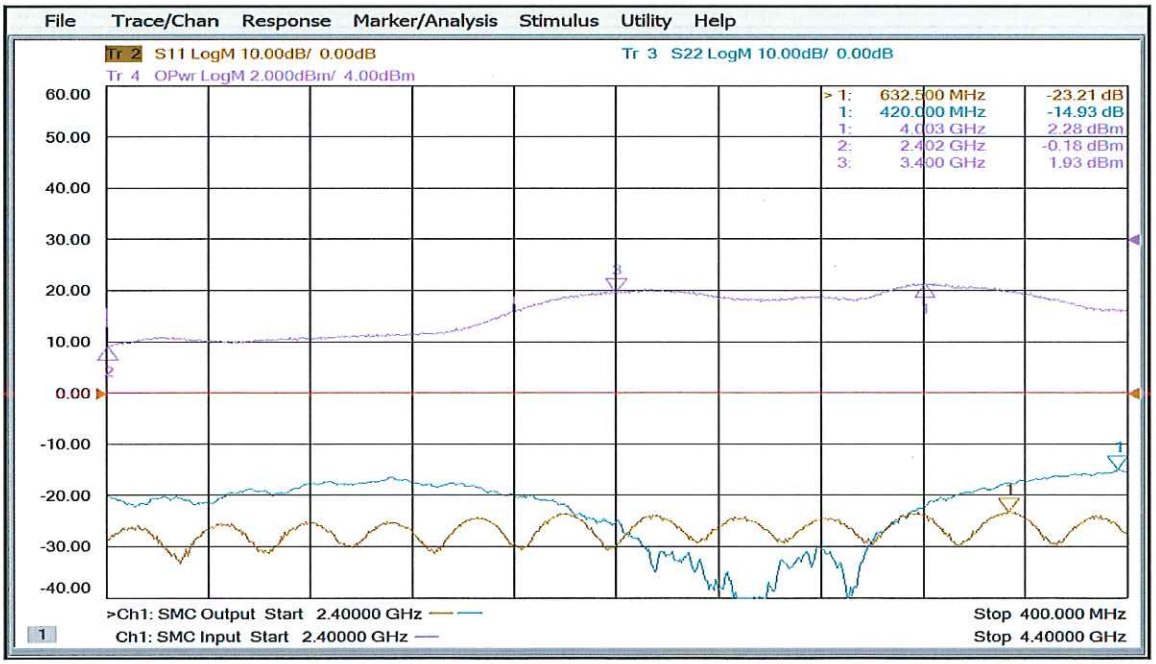
PL20394/1702

RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

RF Receive Input (J1) To IF1 Output (J3A) Channel 1 (-10dBm Input)



RF Receive Input (J1) To IF1 Output (J3A) Channel 1 (-70dBm Input)



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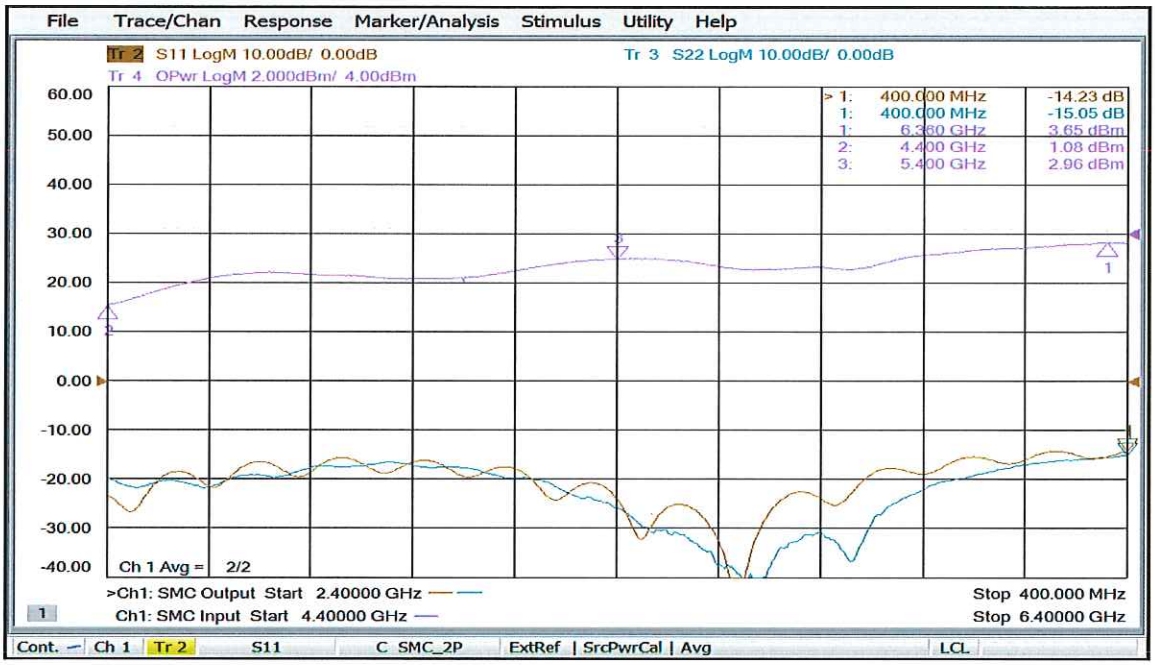
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

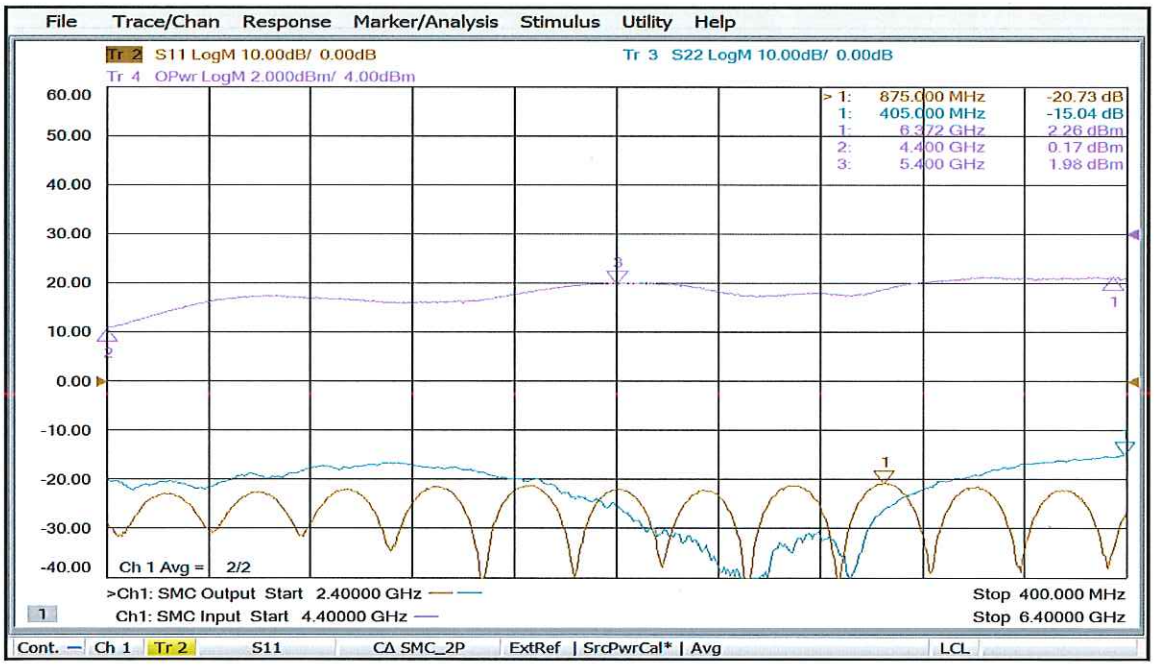
PL20394/1702

RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

RF Receive Input (J1) To IF1 Output (J3A) Channel 2 (-10dBm Input)



RF Receive Input (J1) To IF1 Output (J3A) Channel 2 (-70dBm Input)



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SUMMARY TEST DATA
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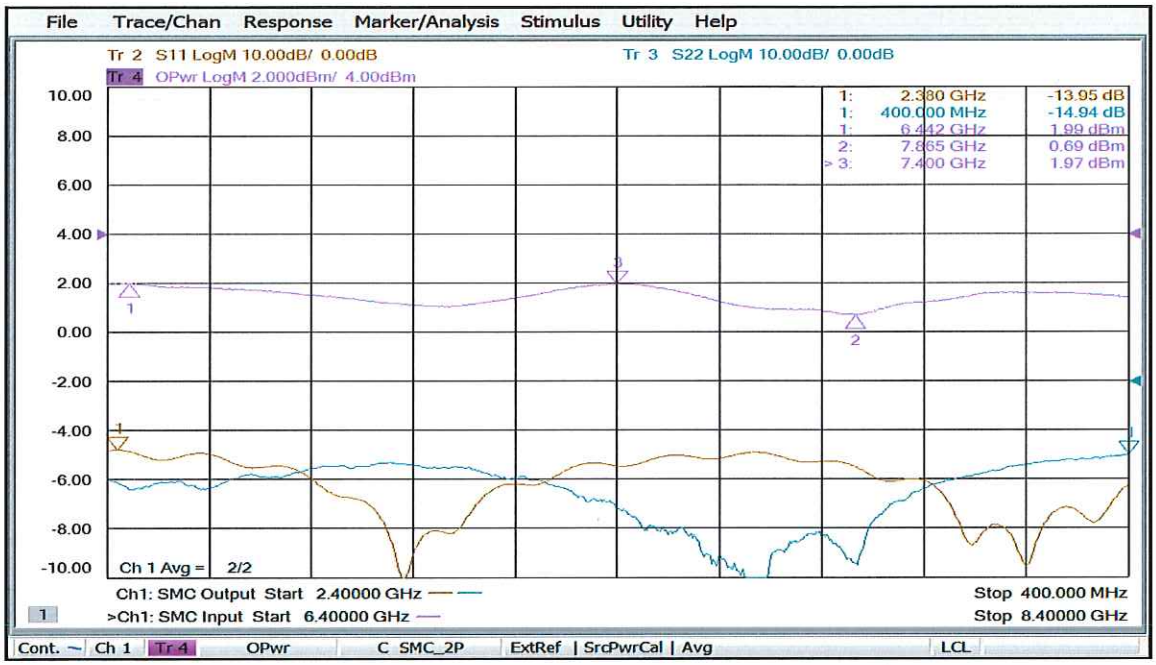
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

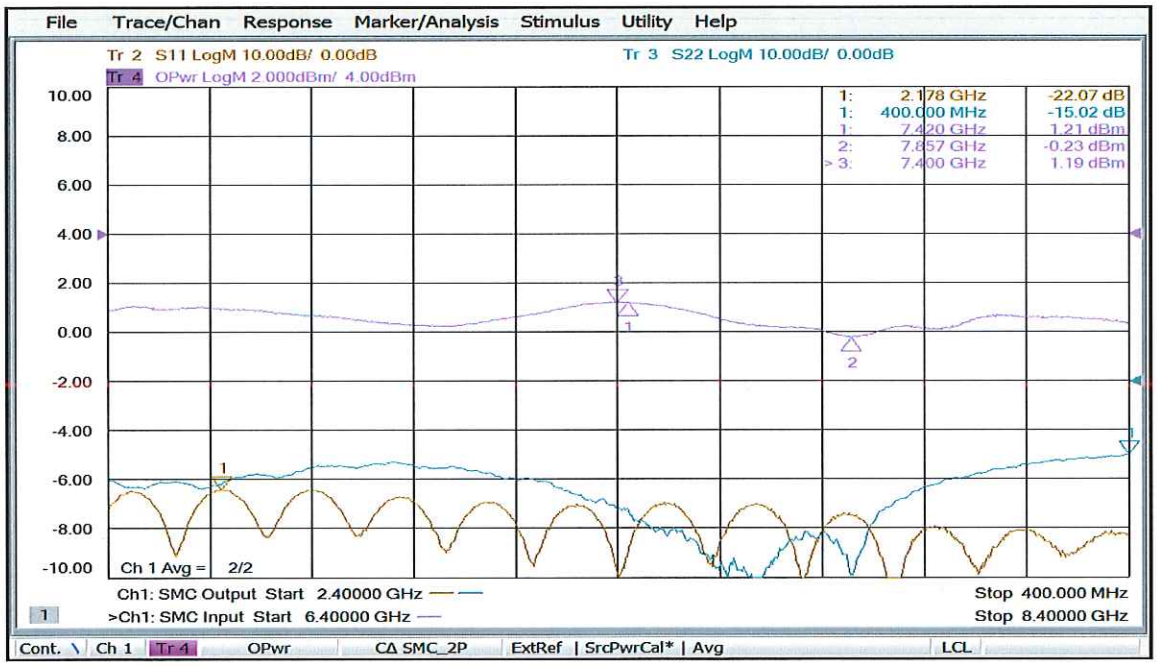
PL20394/1702

RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

RF Receive Input (J1) To IF1 Output (J3A) Channel 3 (-10dBm Input)



RF Receive Input (J1) To IF1 Output (J3A) Channel 3 (-70dBm Input)



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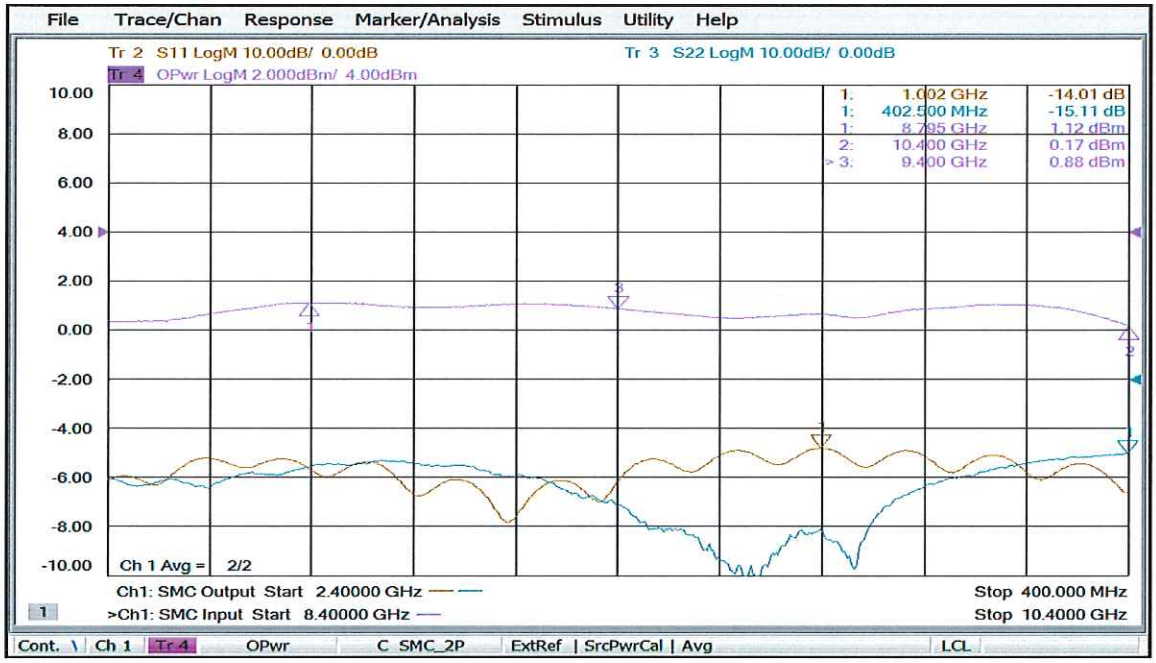
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

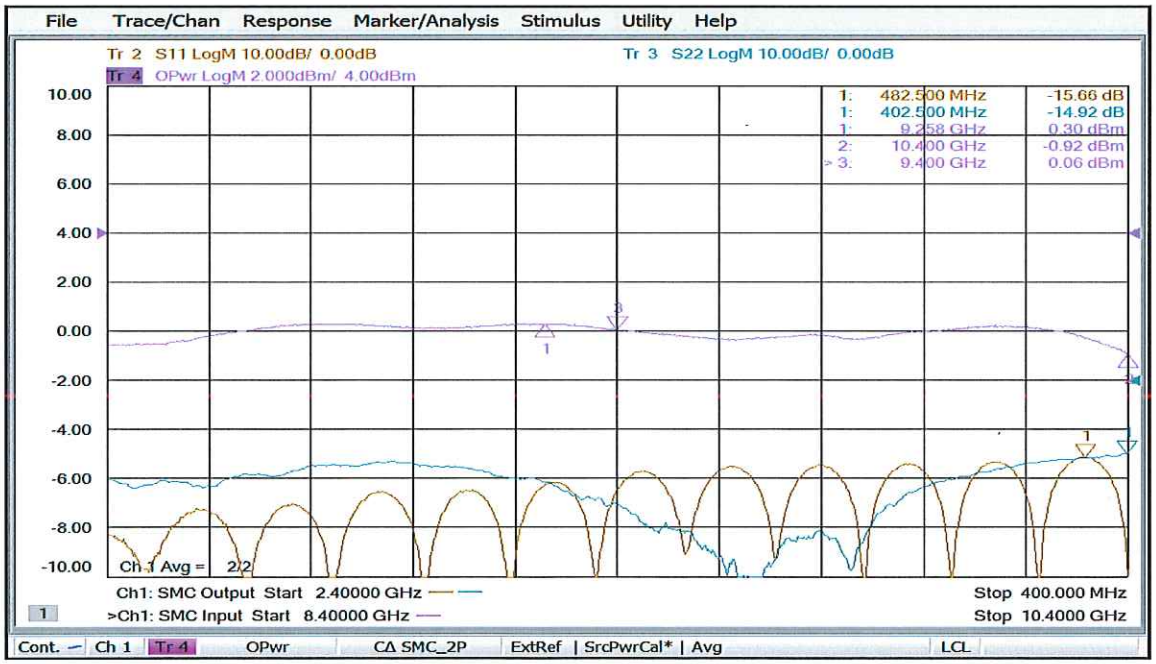
PL20394/1702

RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

RF Receive Input (J1) To IF1 Output (J3A) Channel 4 (-10dBm Input)



RF Receive Input (J1) To IF1 Output (J3A) Channel 4 (-70dBm Input)



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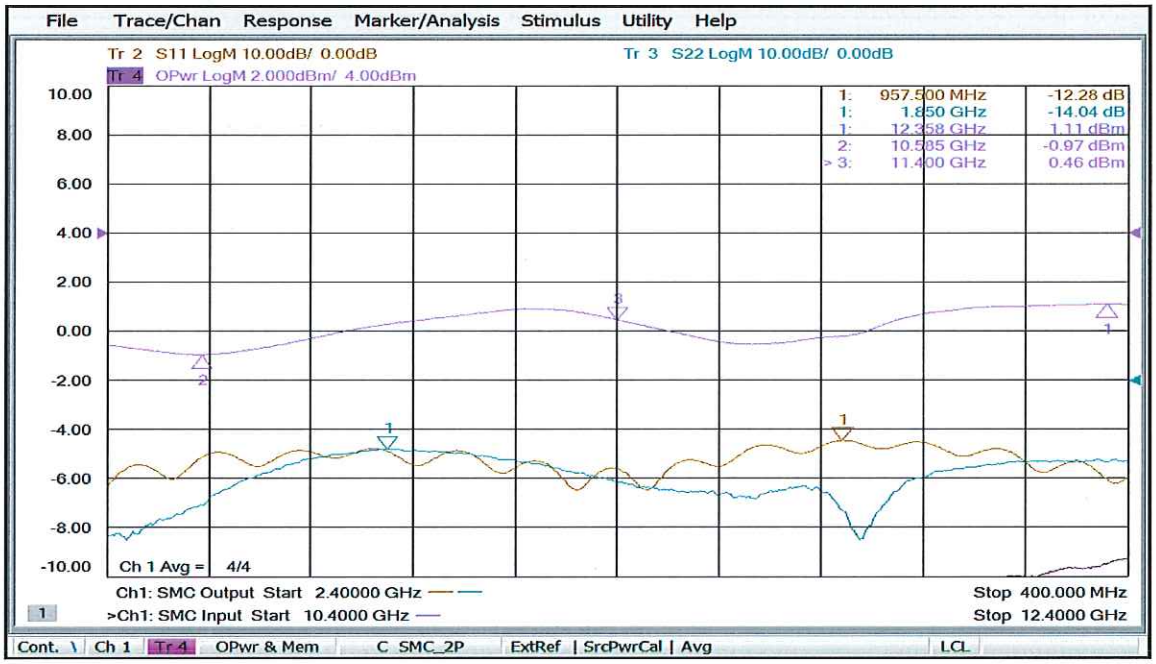
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

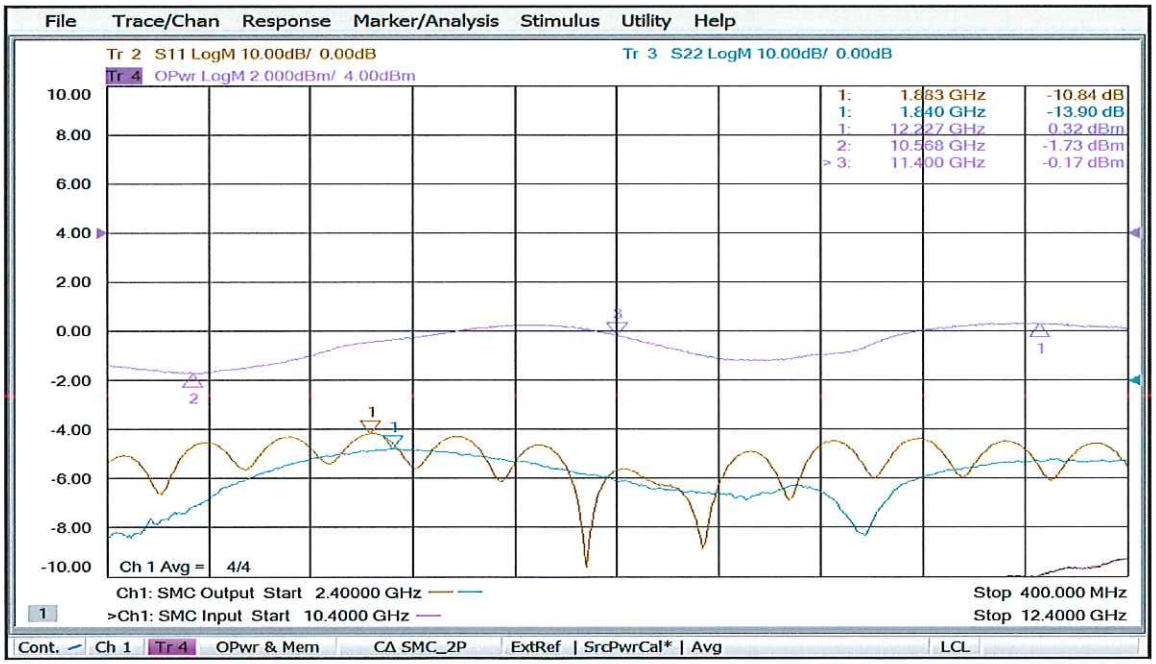
PL20394/1702

RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

RF Receive Input (J1) To IF1 Output (J3A) Channel 5 (-10dBm Input)



RF Receive Input (J1) To IF1 Output (J3A) Channel 5 (-70dBm Input)



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SUMMARY TEST DATA
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PTRAN-100M18G-SFB-3UVPX-10HP-MAH

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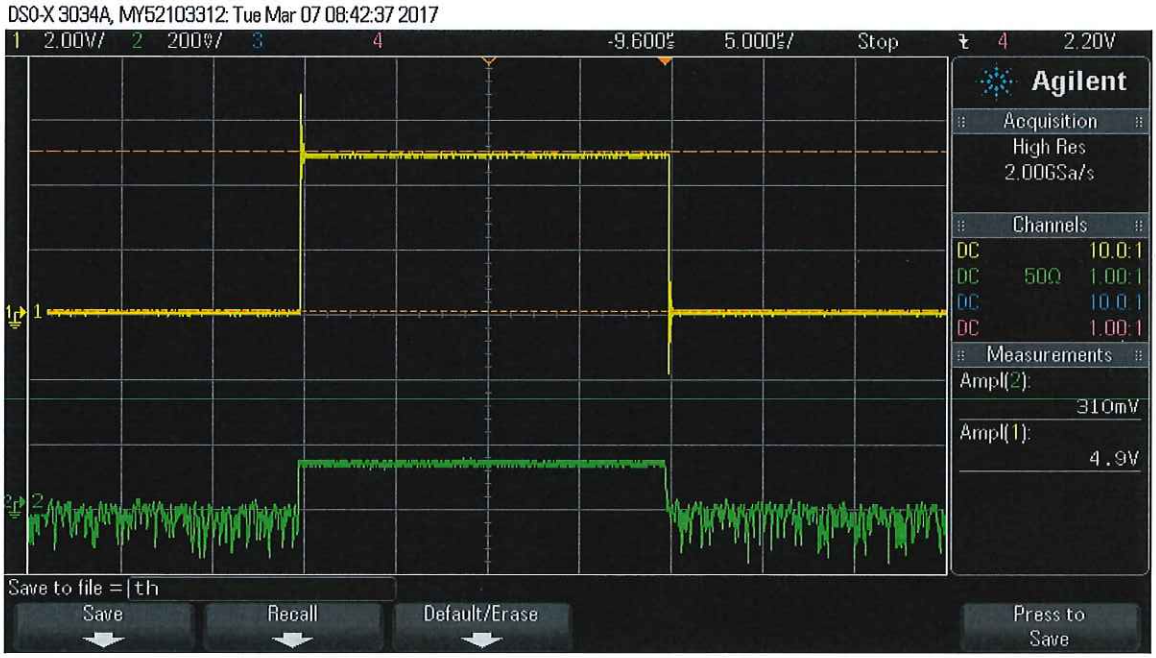
RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

Log Proportional Detected Video Output (V1) and Threshold Detected Video Output (V0)

Thru Channel - 1.4GHz @ -70dBm Threshold Set to 6



Green Trace: J11 - Log Proportional Detected Video Output (V1)

Yellow Trace: J12 - Threshold Detected Video Output (V0)

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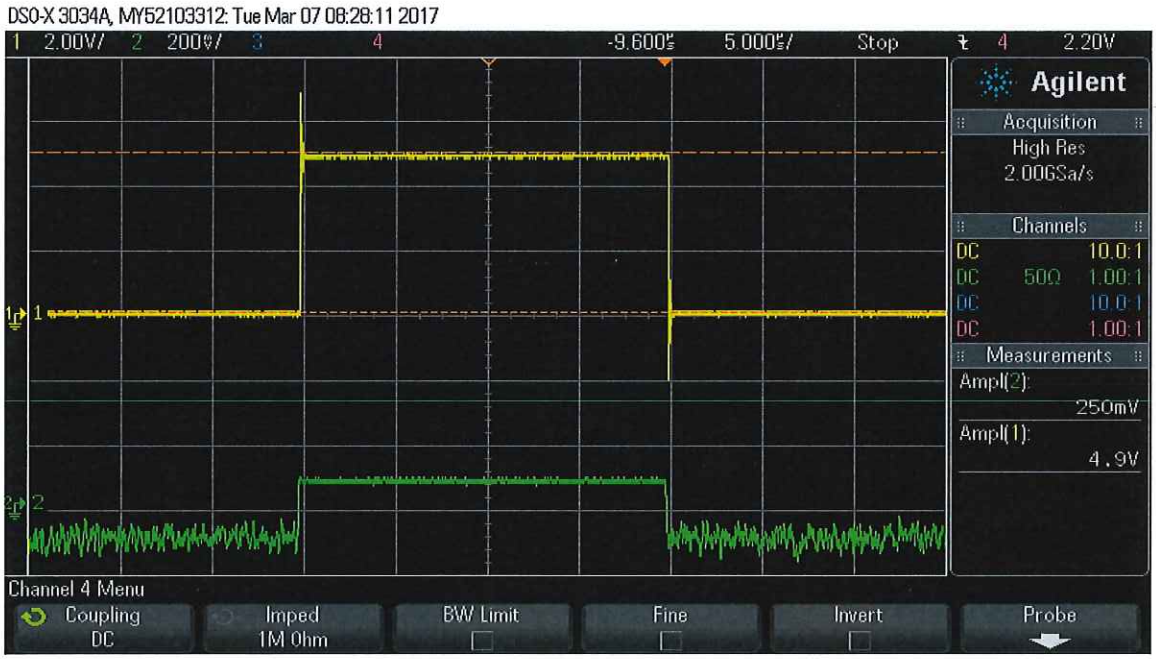
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

Log Proportional Detected Video Output (V1) And Threshold Detected Video Output (V0)

Channel 1 - 3.4GHz @ -65dBm Threshold Set to 4



Green Trace: J11 - Log Proportional Detected Video Output (V1)

Yellow Trace: J12 - Threshold Detected Video Output (V0)

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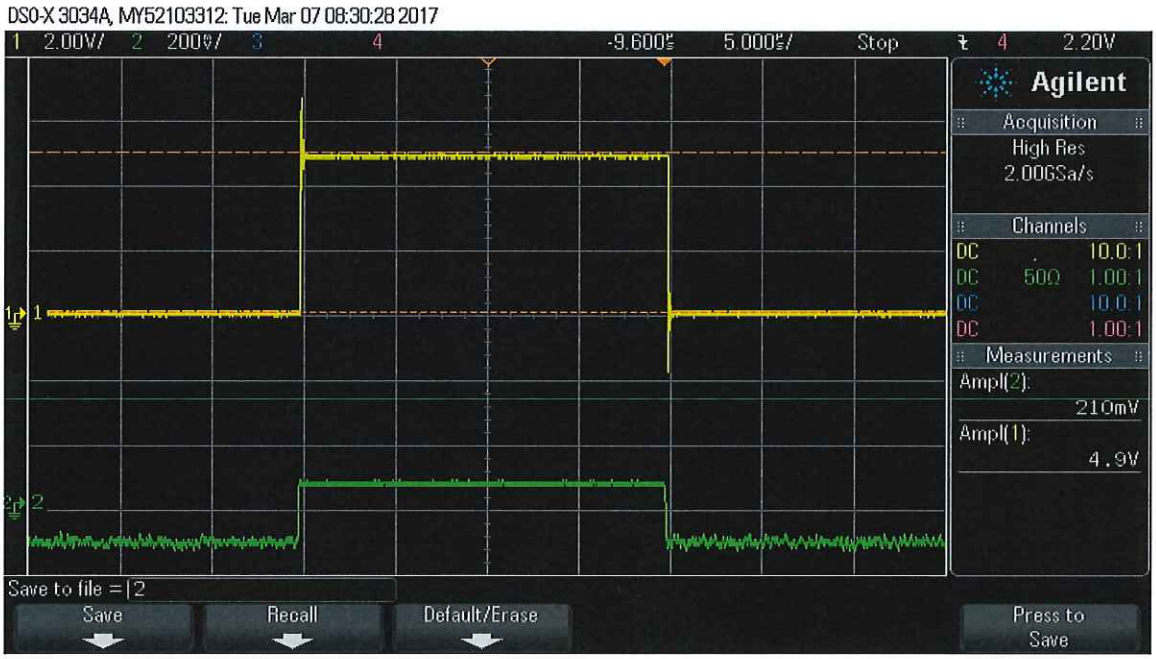
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

Log Proportional Detected Video Output (V1) And Threshold Detected Video Output (V0)

Channel 2 - 5.4GHz @ -65dBm Threshold Set to 5



Green Trace: J11 - Log Proportional Detected Video Output (V1)

Yellow Trace: J12 - Threshold Detected Video Output (V0)

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SUMMARY TEST DATA
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PTRAN-100M18G-SFB-3UVPX-10HP-MAH

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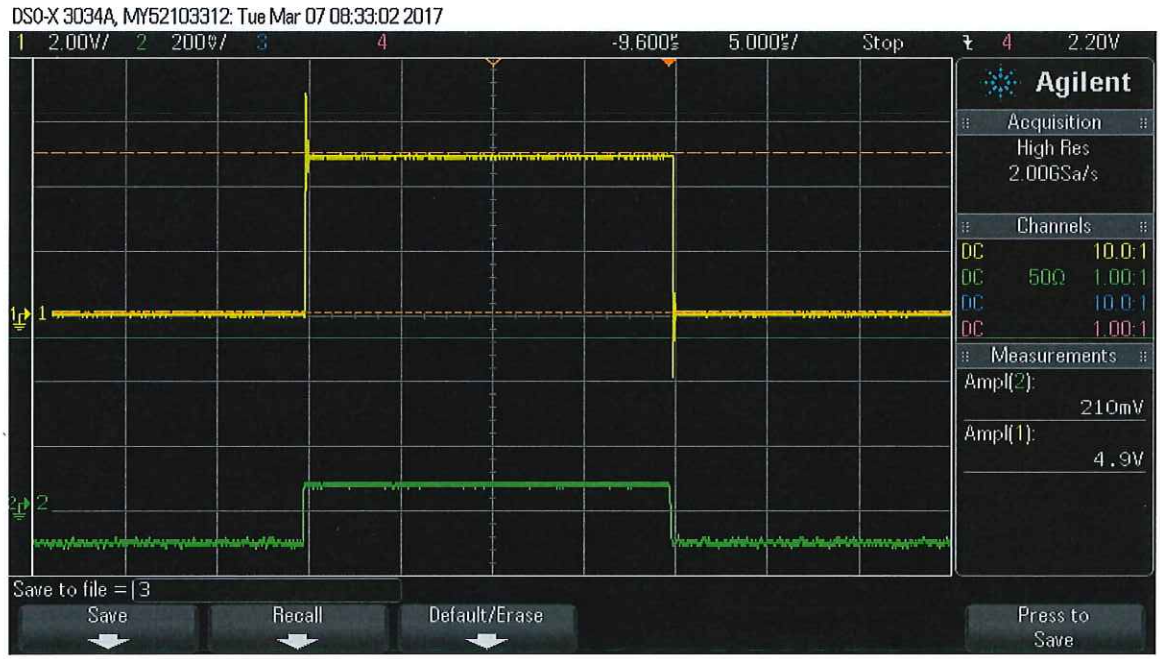
RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

Log Proportional Detected Video Output (V1) And Threshold Detected Video Output (V0)

Channel 3 - 7.4GHz @ -65dBm Threshold Set to 5



Green Trace: J11 - Log Proportional Detected Video Output (V1)

Yellow Trace: J12 - Threshold Detected Video Output (V0)

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SUMMARY TEST DATA
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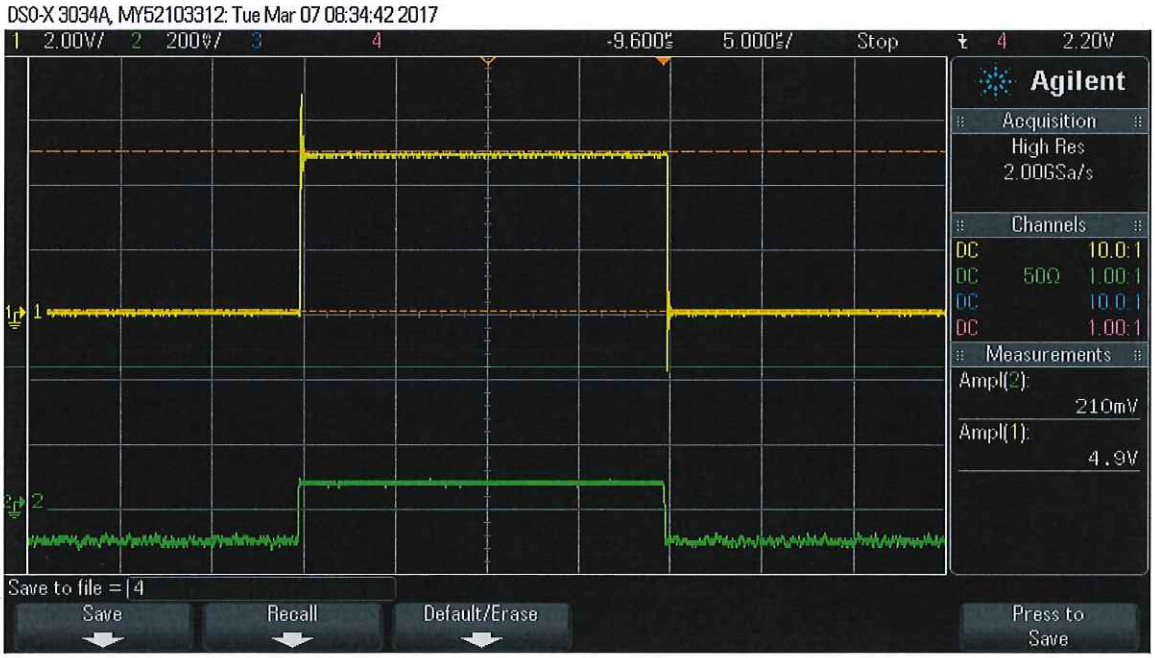
RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

Log Proportional Detected Video Output (V1) And Threshold Detected Video Output (V0)

Channel 4 - 9.4GHz @ -64dBm Threshold Set to 5



Green Trace: J11 - Log Proportional Detected Video Output (V1)

Yellow Trace: J12 - Threshold Detected Video Output (V0)

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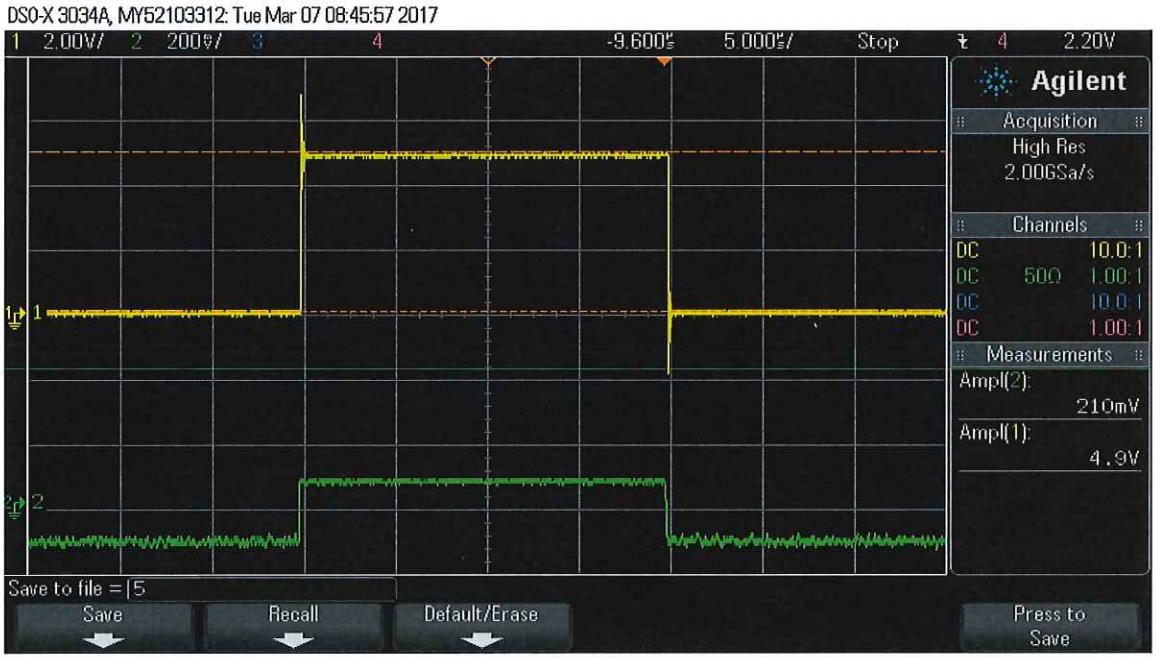
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

RECEIVE INPUT to IF OUTPUT PLOTS - Limited RF Channel

Log Proportional Detected Video Output (V1) And Threshold Detected Video Output (V0)

Channel 5 - 11.4GHz @ -65dBm Threshold Set to 5



Green Trace: J11 - Log Proportional Detected Video Output (V1)

Yellow Trace: J12 - Threshold Detected Video Output (V0)

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SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

TABLE 1

Typical Minimum Threshold Values for Band Centers and Band Edges

Channel	Frequency	dBm	Threshold setting	Frequency	dBm	Threshold setting	Frequency	dBm	Threshold setting
1	2.4 GHz	-70	10	3.4 GHz	-71	10	4.4 GHz	-70	10
2	4.4 GHz	-68	10	5.4 GHz	-68	10	6.4 GHz	-65	10
3	6.4 GHz	-64	8	7.4 GHz	-67	8	8.4 GHz	-64	8
4	8.4 GHz	-67	8	9.4 GHz	-69	8	10.4 GHz	-66	8
5	10.4 GHz	-66	8	11.4 GHz	-68	8	12.4 GHz	-66	8
THRU	400 MHz	-67	19	1.4 GHz	-68	19	2.4 GHz	-67	19

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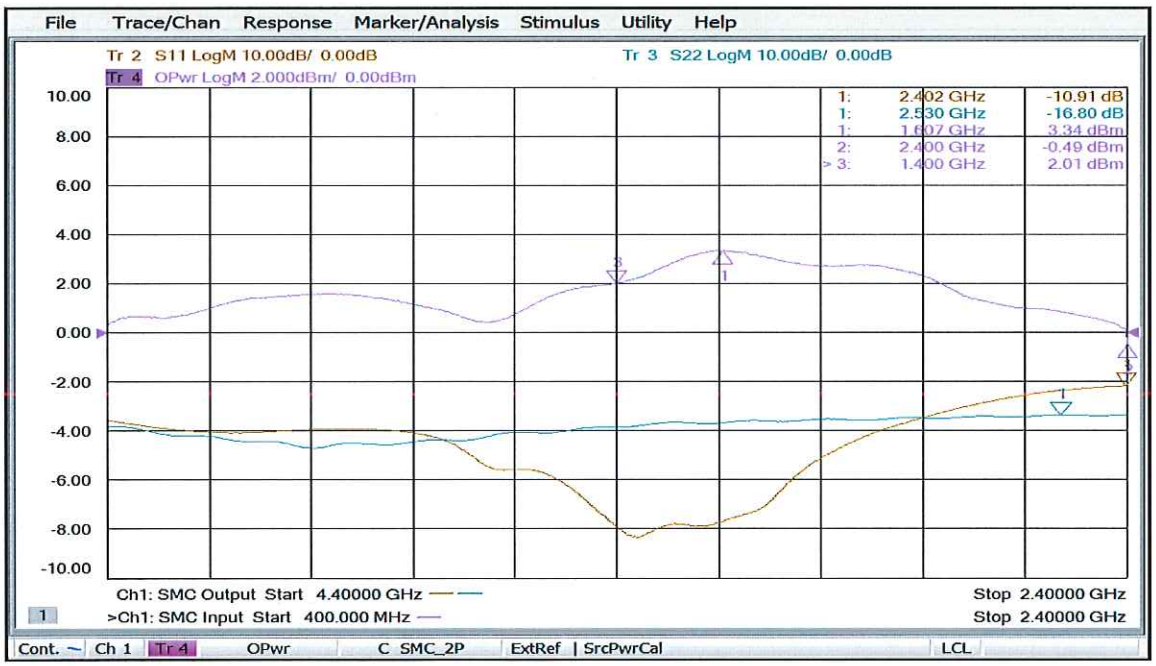
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

IF INPUT to TRANSMIT OUTPUT PLOTS

IF1 Input (J4A) To RF Transmit Output (J6) Thru Channel (0dBm Input)

IF1 Input (J4A) To RF Transmit Output (J6) Channel 1 (0dBm Input)



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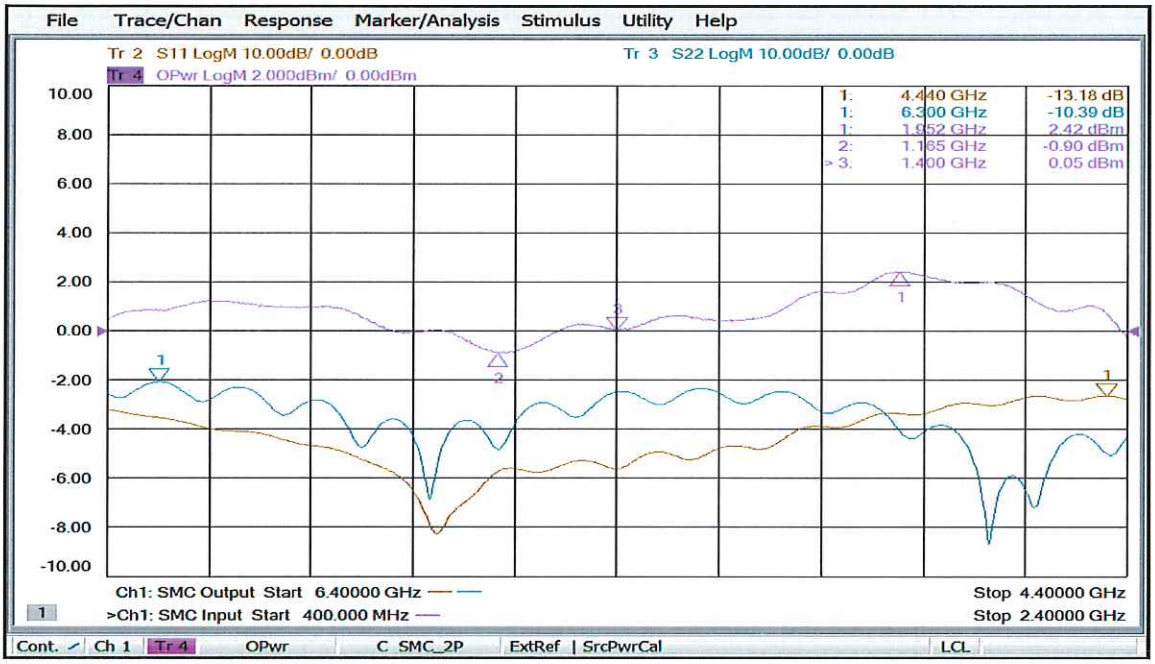
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

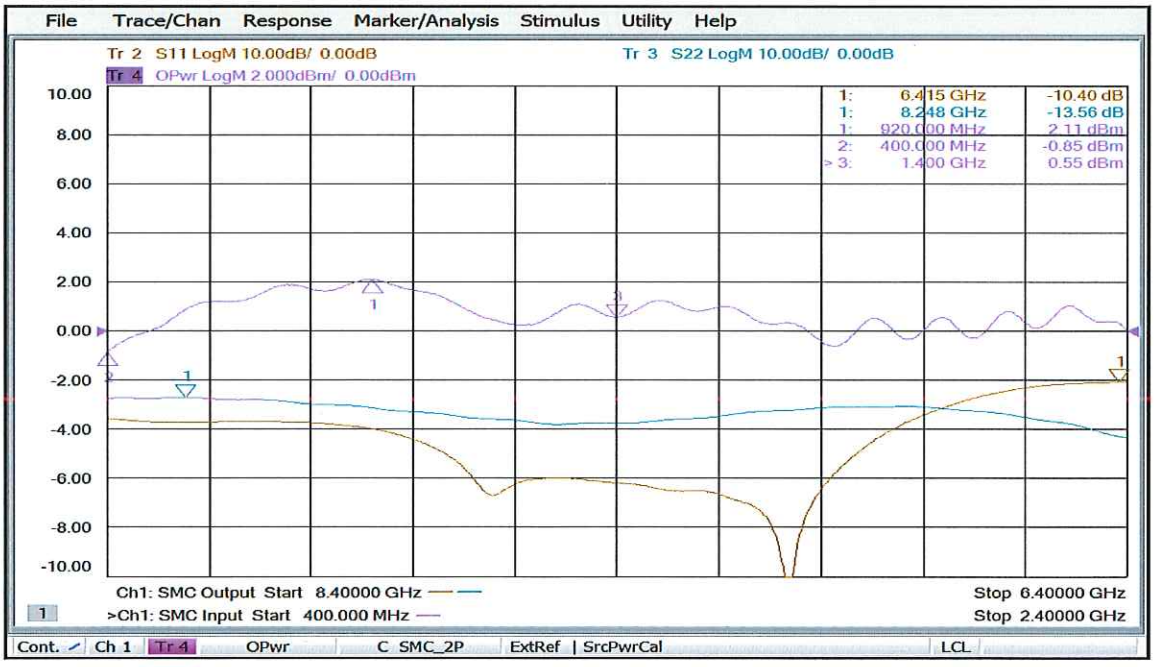
PL20394/1702

IF INPUT to TRANSMIT OUTPUT PLOTS

IF1 Input (J4A) To RF Transmit Output (J6) Channel 2 (0dBm Input)



IF1 Input (J4A) To RF Transmit Output (J6) Channel 3 (0dBm Input)



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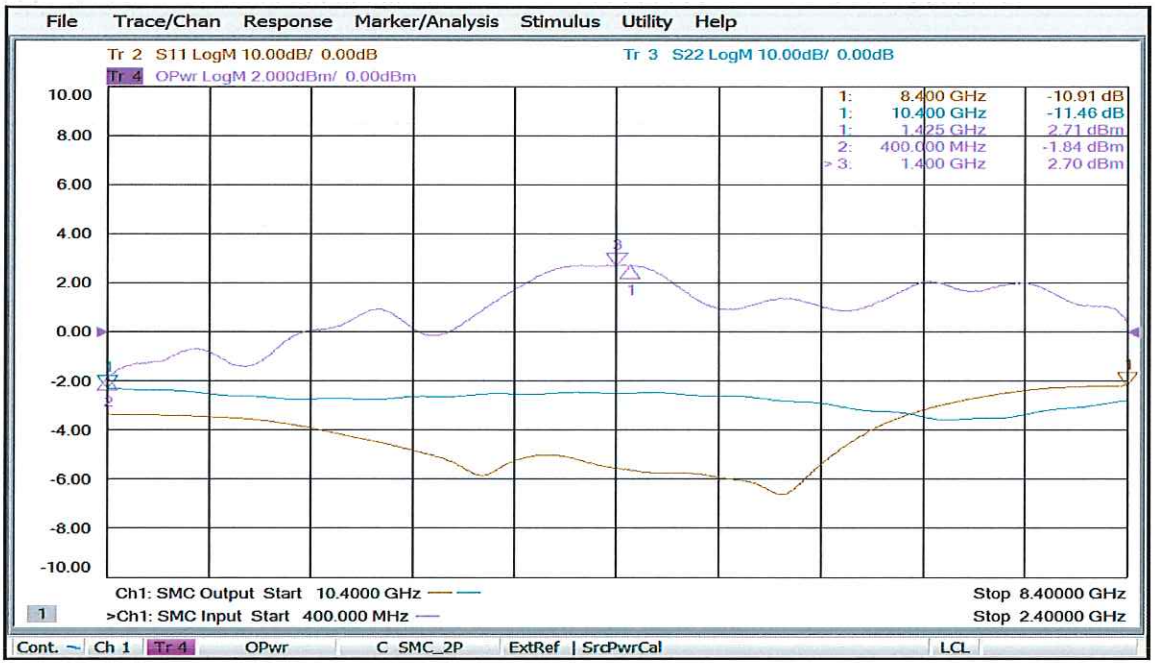
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

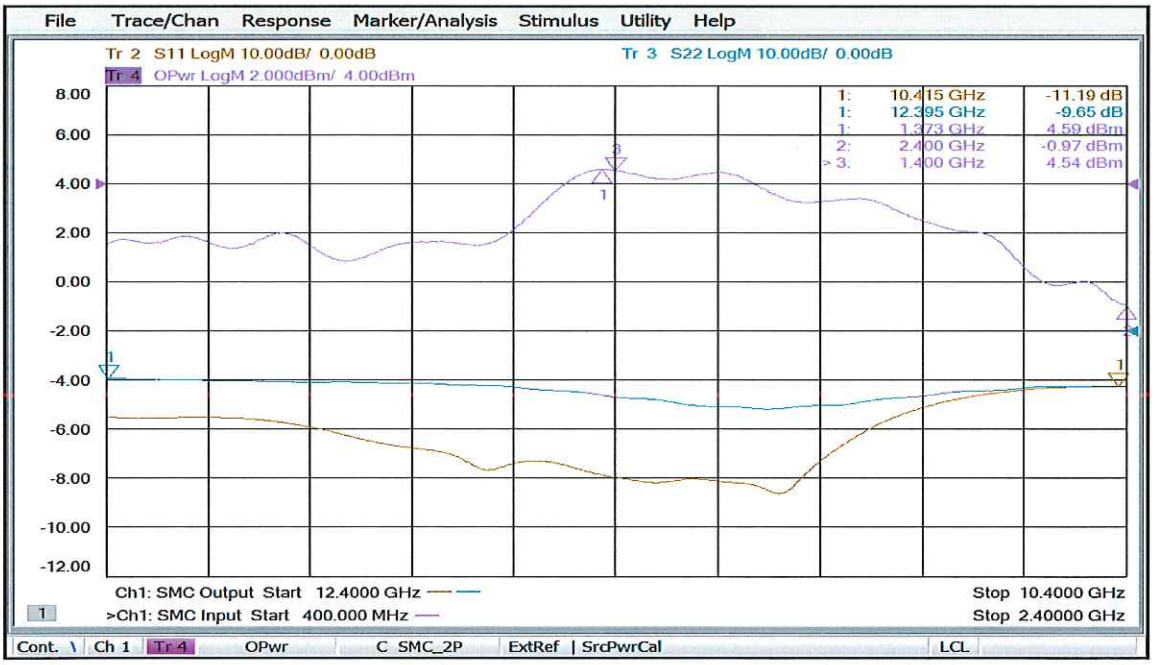
PL20394/1702

IF INPUT to TRANSMIT OUTPUT PLOTS

IF1 Input (J4A) To RF Transmit Output (J6) Channel 4 (0dBm Input)



IF1 Input (J4A) To RF Transmit Output (J6) Channel 5 (0dBm Input)



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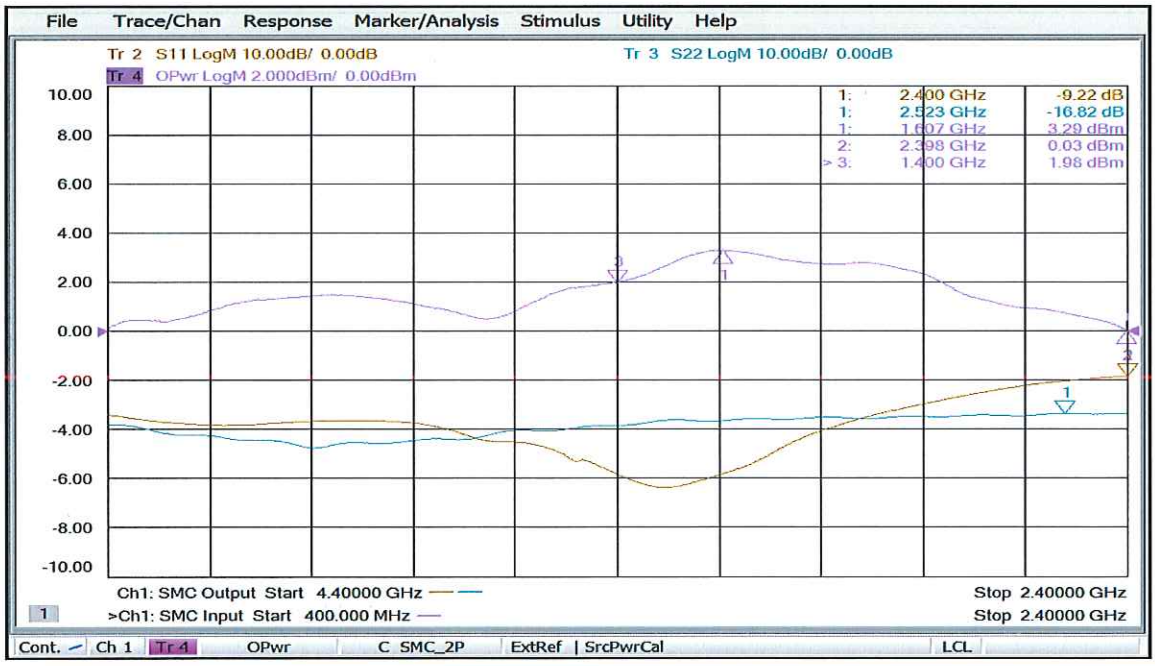
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

PL20394/1702

IF INPUT to TRANSMIT OUTPUT PLOTS

IF2 Input (J4A) To RF Transmit Output (J6) Thru Channel (0dBm Input)

IF2 Input (J4A) To RF Transmit Output (J6) Channel 1 (0dBm Input)



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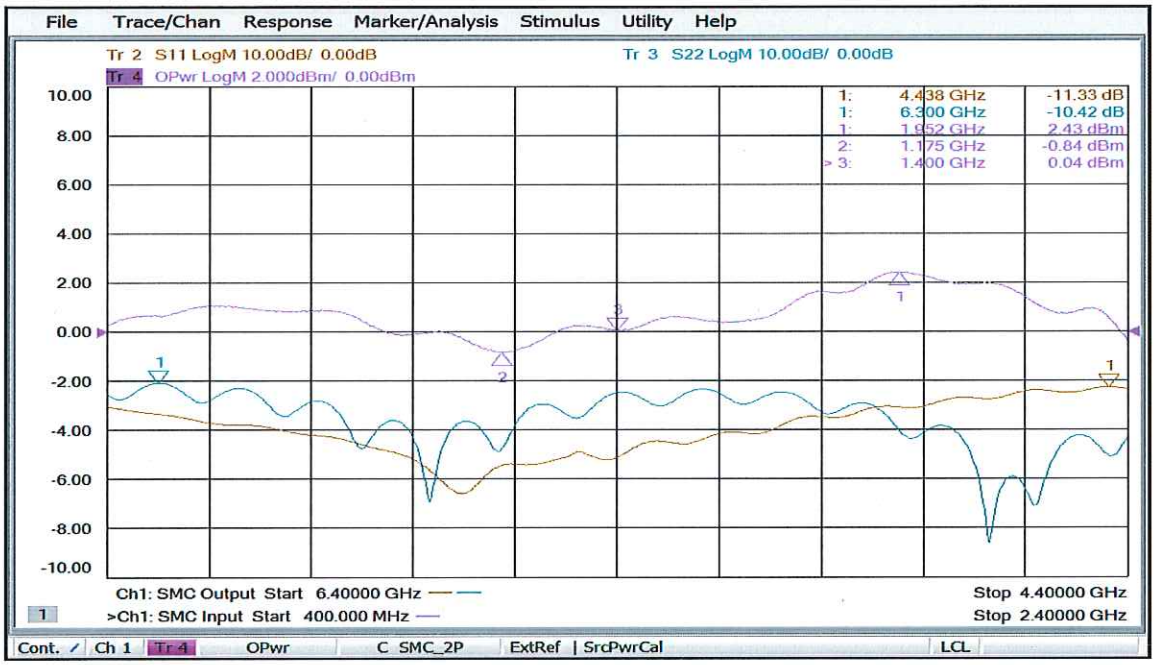
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

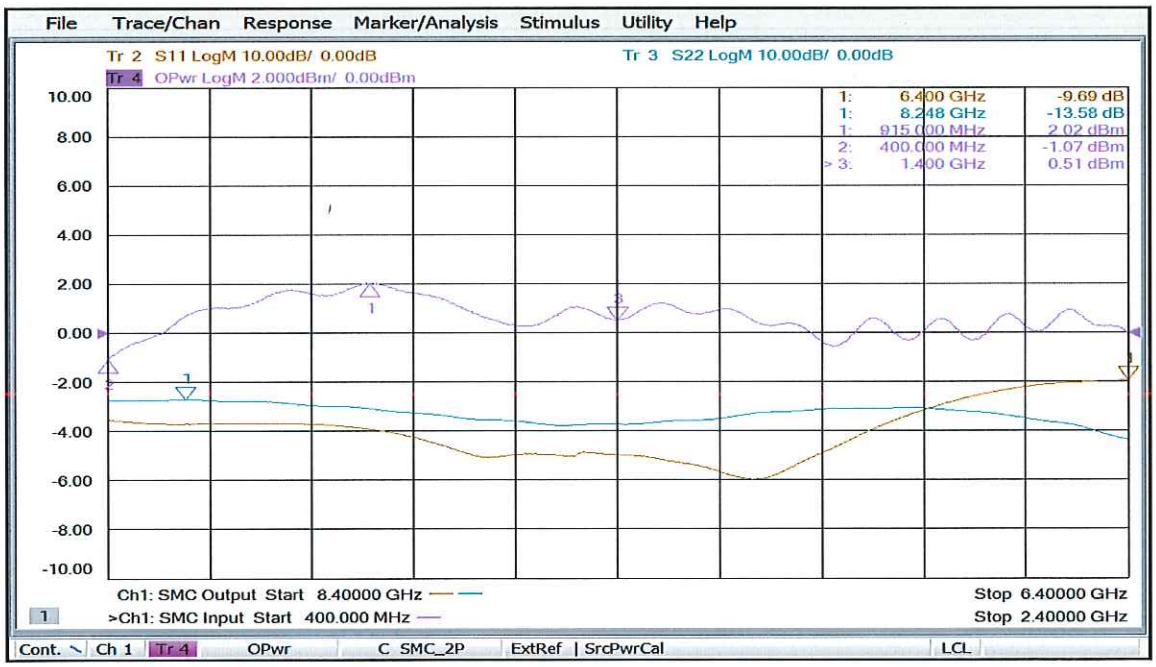
PL20394/1702

IF INPUT to TRANSMIT OUTPUT PLOTS

IF2 Input (J4A) To RF Transmit Output (J6) Channel 2 (0dBm Input)



IF2 Input (J4A) To RF Transmit Output (J6) Channel 3 (0dBm Input)



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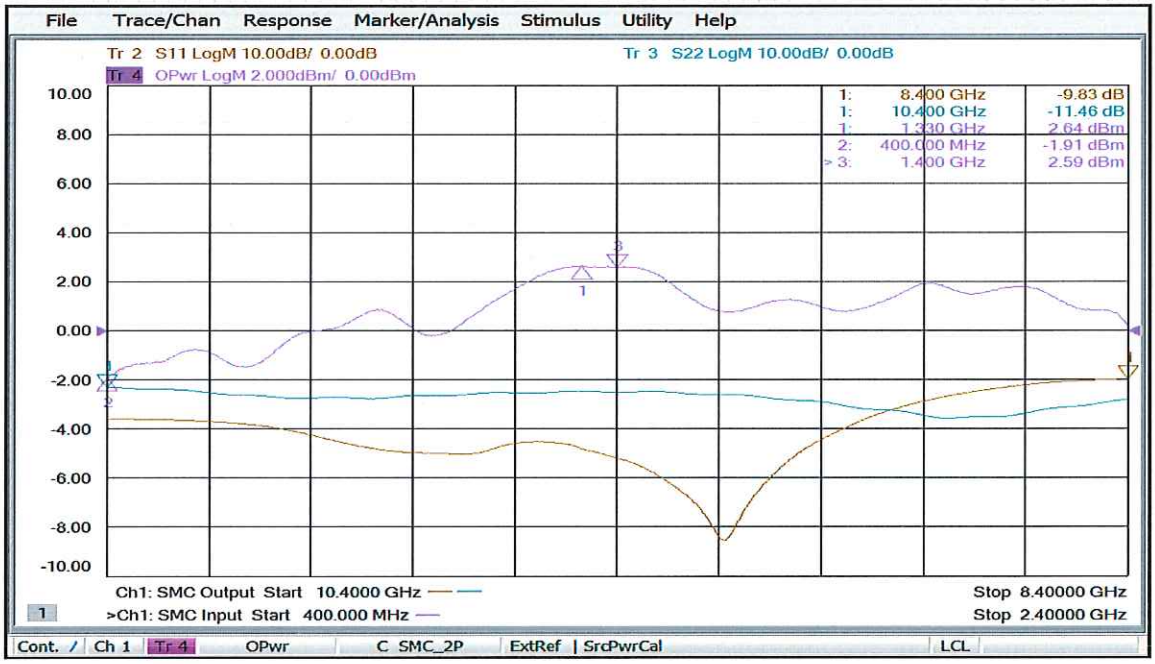
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

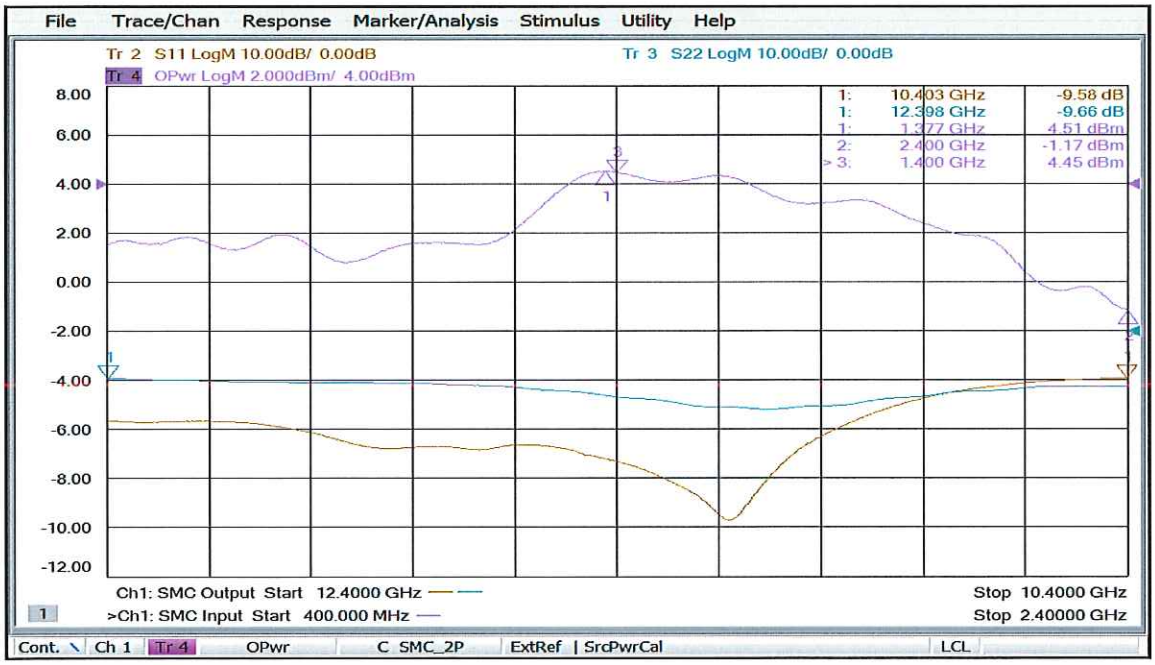
PL20394/1702

IF INPUT to TRANSMIT OUTPUT PLOTS

IF2 Input (J4A) To RF Transmit Output (J6) Channel 4 (0dBm Input)



IF2 Input (J4A) To RF Transmit Output (J6) Channel 5 (0dBm Input)



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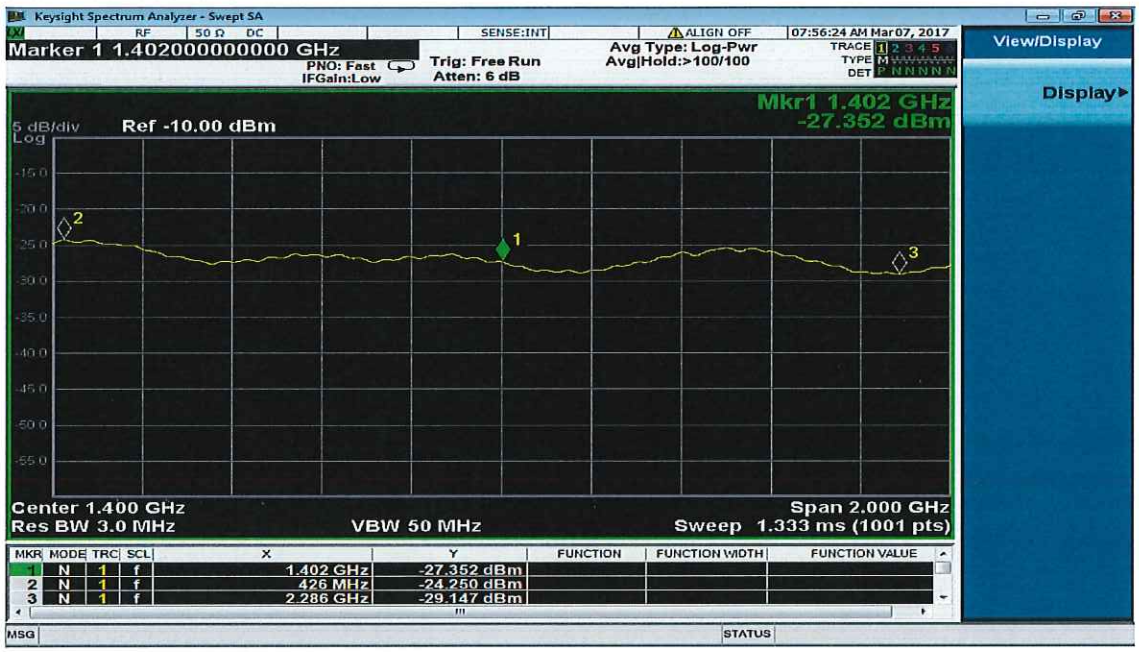
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

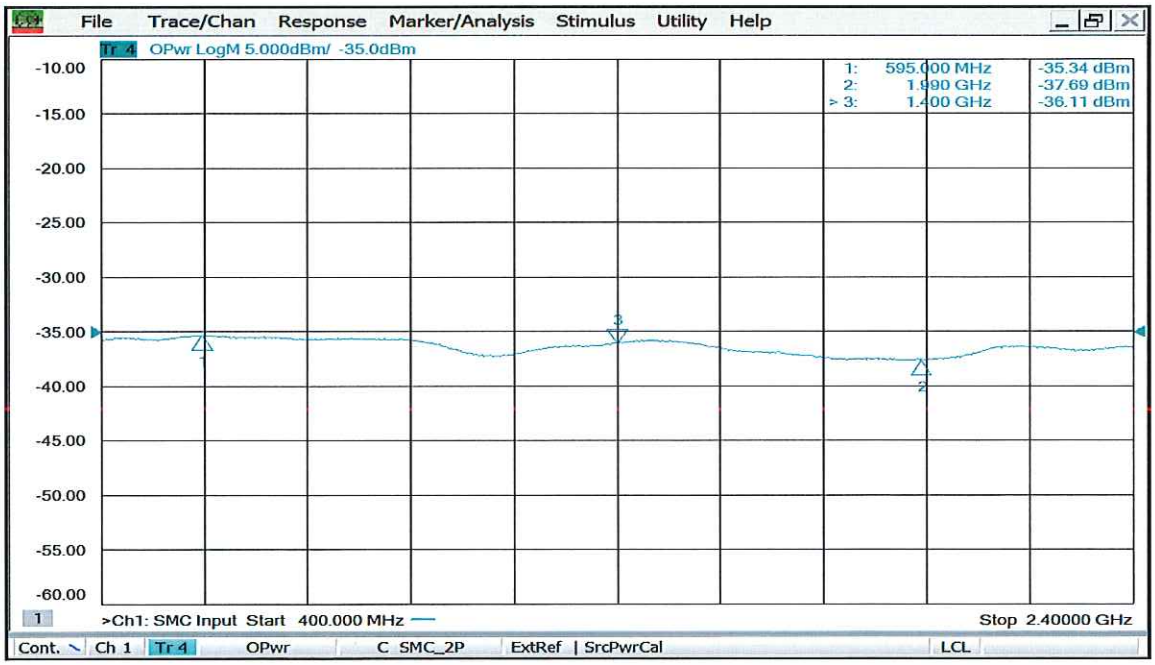
PL20394/1702

IF INPUT to RF TRANSMIT SAMPLE OUTPUT PLOTS

IF1 Input (J4A) To RF Transmit Sample Output (J8) Thru Channel (0dBm Input)



IF1 Input (J4A) To RF Transmit Sample Output (J8) Channel 1 (0dBm Input)



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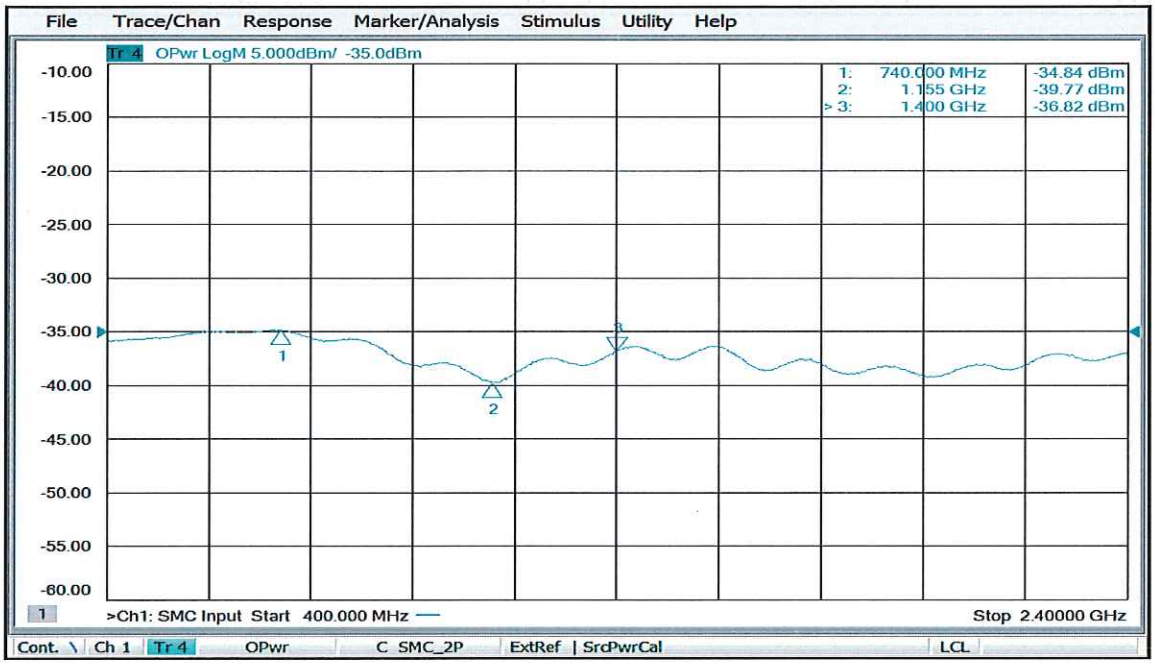
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

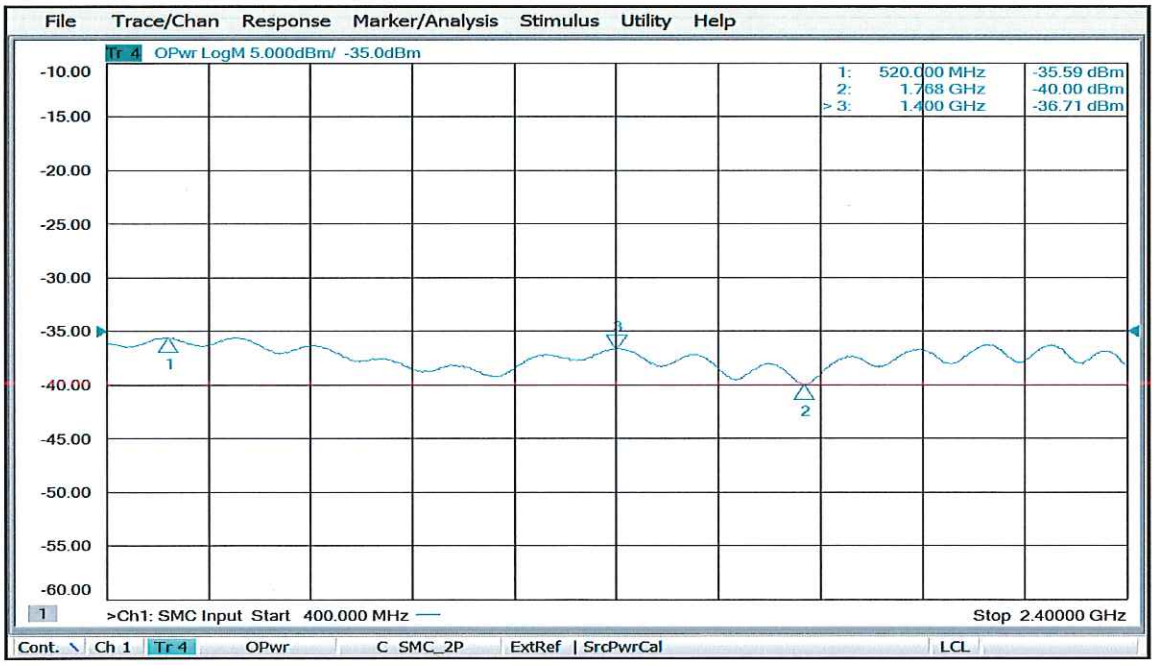
PL20394/1702

IF INPUT to RF TRANSMIT SAMPLE OUTPUT PLOTS

IF1 Input (J4A) To RF Transmit Sample Output (J8) Channel 2 (0dBm Input)



IF1 Input (J4A) To RF Transmit Sample Output (J8) Channel 3 (0dBm Input)



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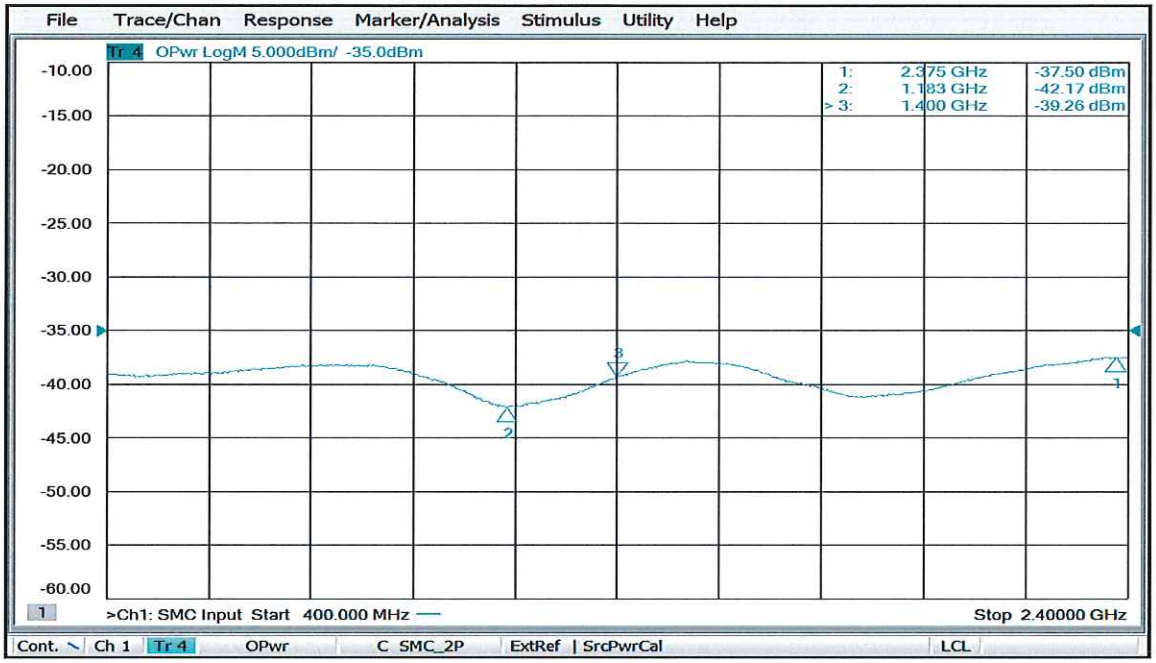
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

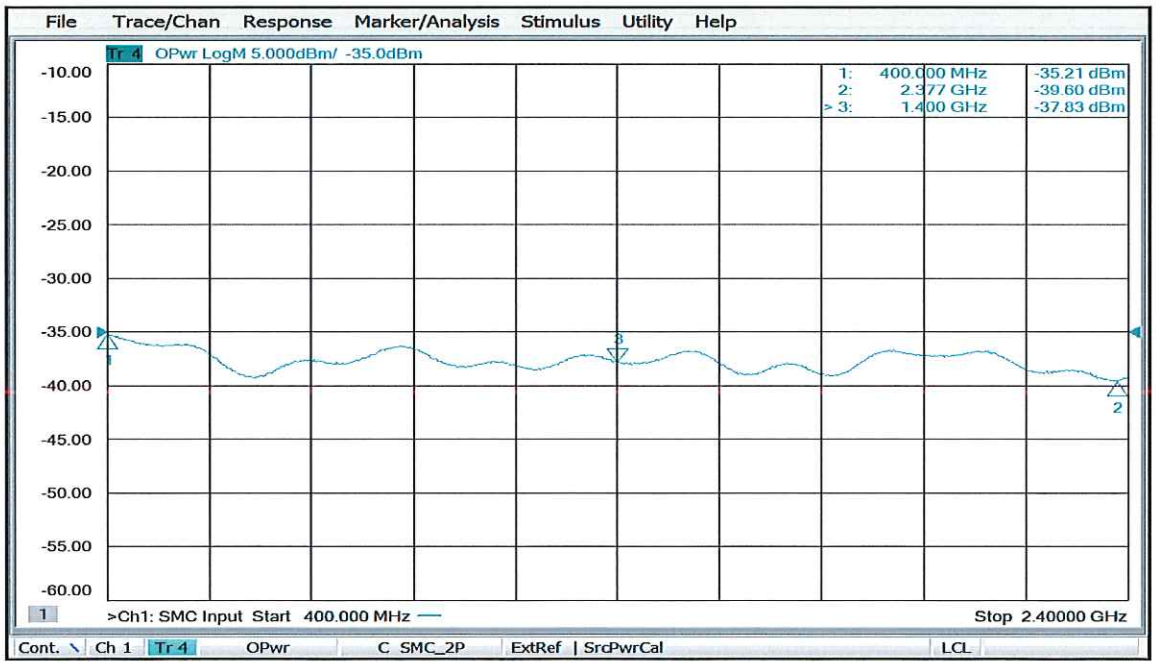
PL20394/1702

IF INPUT to RF TRANSMIT SAMPLE OUTPUT PLOTS

IF1 Input (J4A) To RF Transmit Sample Output (J8) Channel 4 (0dBm Input)



IF1 Input (J4A) To RF Transmit Sample Output (J8) Channel 5 (0dBm Input)



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SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

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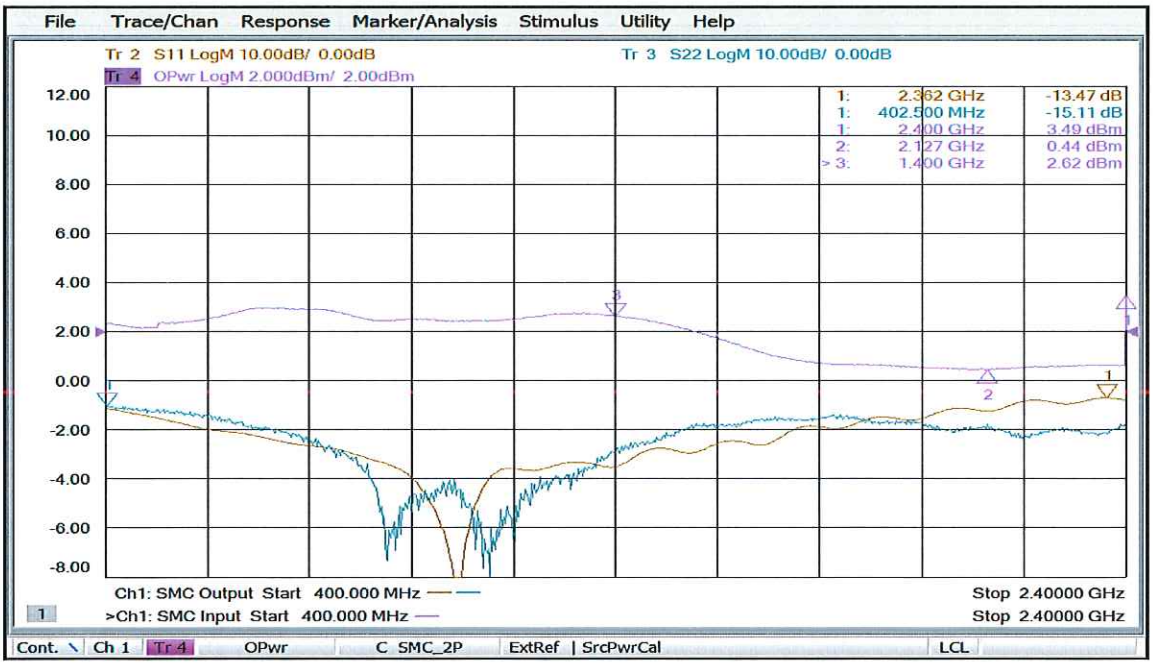
IF INPUT to RF TRANSMIT BUILT-IN-TEST OUTPUT PLOTS

IF1 Input (J4A) To IF1 Output (J3A) Thru Channel (0dBm Input)

IF1 Input (J4A) To IF1 Output (J3A) Channel 1 (0dBm Input)



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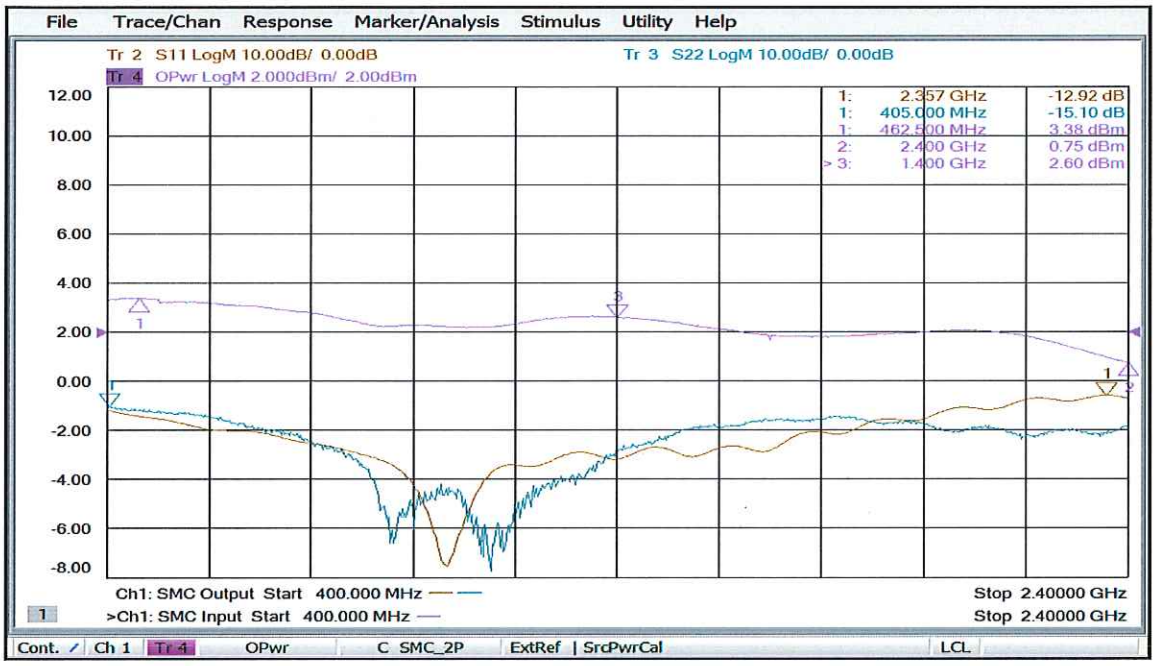
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

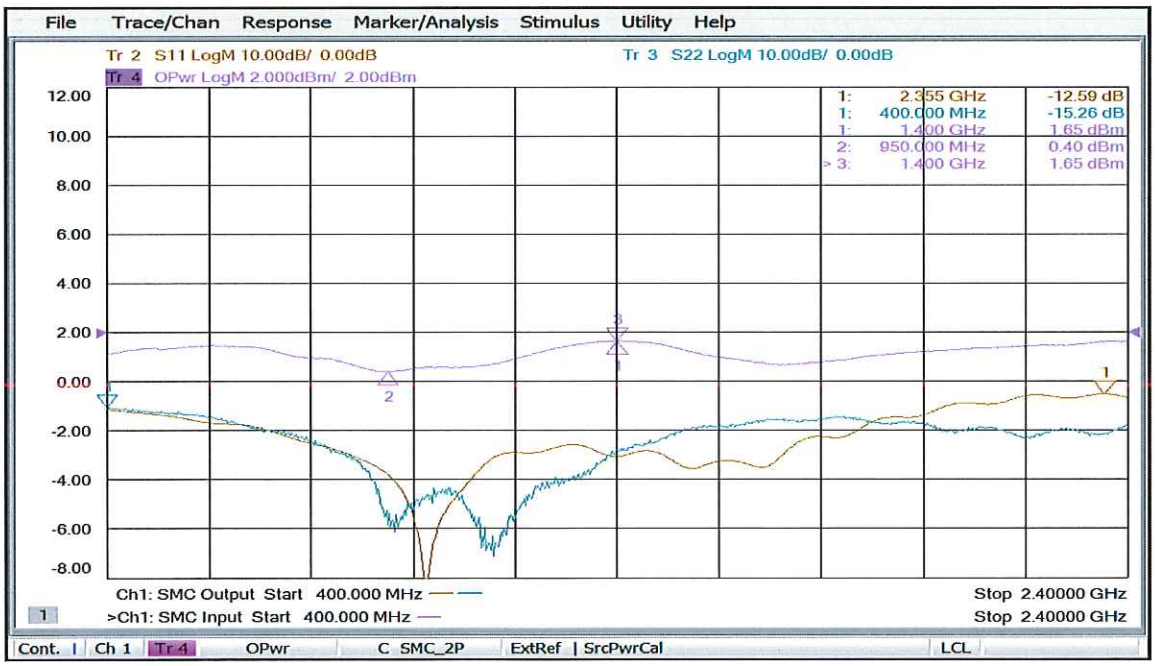
PL20394/1702

IF INPUT to RF TRANSMIT BUILT-IN-TEST OUTPUT PLOTS

IF1 Input (J4A) To IF1 Output (J3A) Channel 2 (0dBm Input)



IF1 Input (J4A) To IF1 Output (J3A) Channel 3 (0dBm Input)



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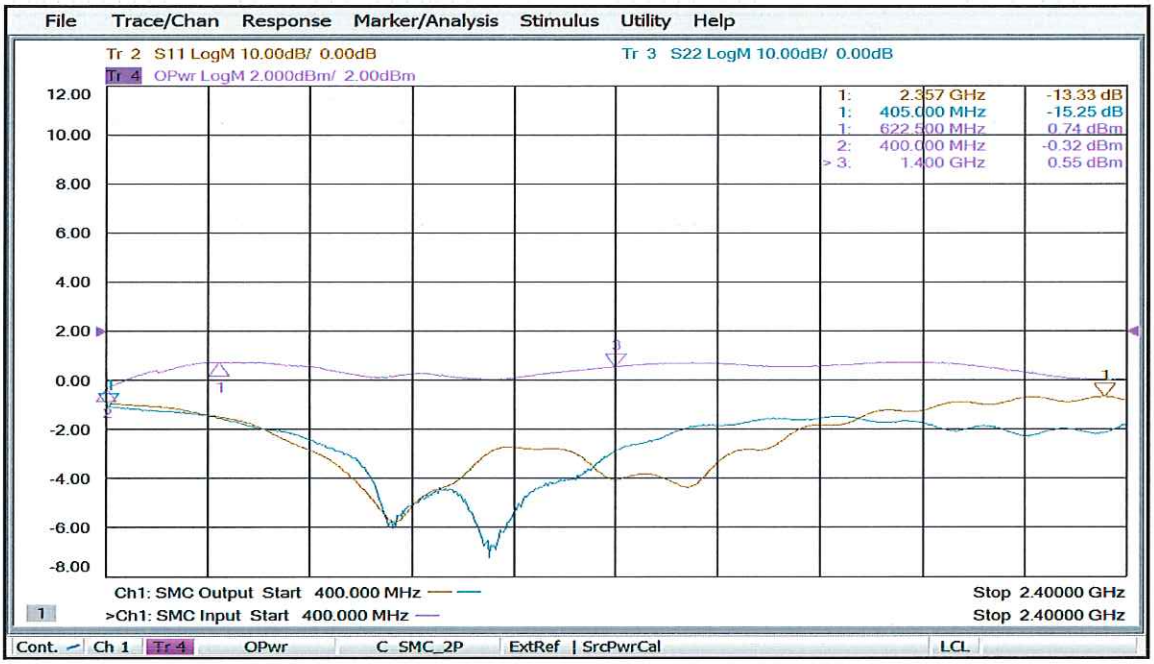
SUMMARY TEST DATA
ON
PTRAN-100M18G-SFB-3UVPX-10HP-MAH

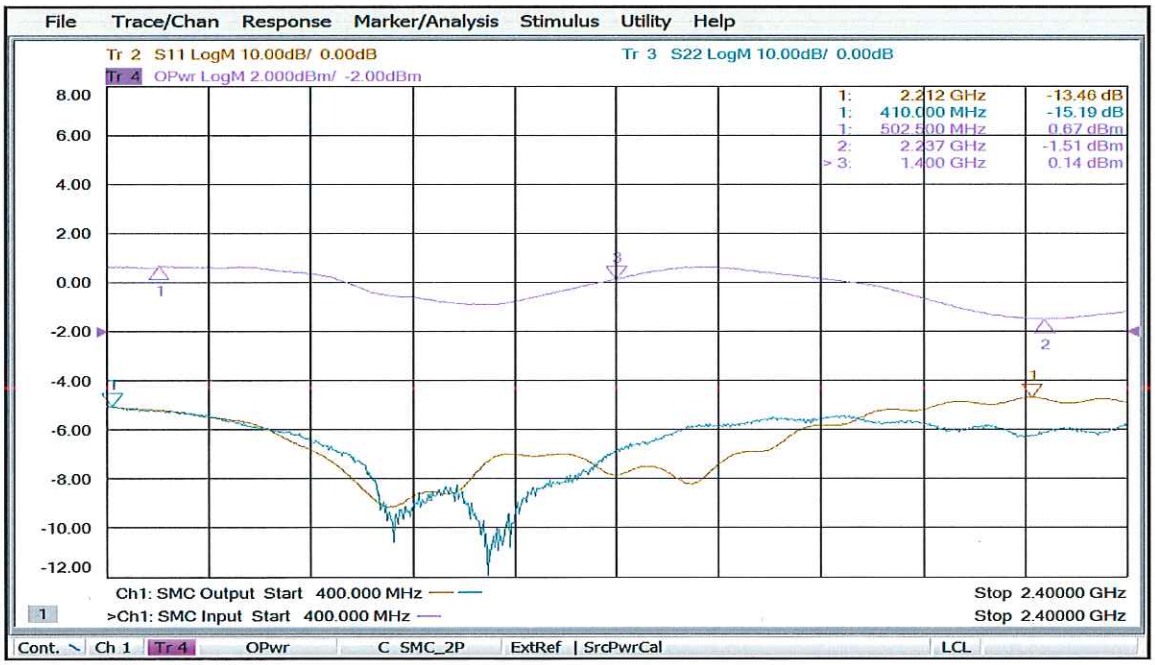
PL20394/1702

IF INPUT to RF TRANSMIT BUILT-IN-TEST OUTPUT PLOTS

IF1 Input (J4A) To IF1 Output (J3A) Channel 4 (0dBm Input)



IF1 Input (J4A) To IF1 Output (J3A) Channel 5 (0dBm Input)



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SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

Customer:		**Tested By:**	H. Gonzales		
SO No:		**Temperature:**	+25°C		
Model No:	6SFB-CC-100M18G-MAH-RX-TX	**Date:**	2/27/17		
Serial No:	PL20382/1702	**Drawing No:**	27624332	**Rev:**	A1

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	J1 Input Frequency (RF RX Input)	100MHz–18.0GHz	**100MHz-18.0GHz See Plot**	PMI QA 2
2	J1 Input Power Level	-80dBm to -10dBm Typical	**-80dBm to -10dBm**	
3	J5 Input Frequency (RF TX Input)	100MHz-18.0GHz	**100MHz-18.0GHz See Plot**	
4	J5 Input Power Level	-20dBm to -15dBm Typical	**-20dBm to -15dBm**	
5	J7 Input Frequency (RF BIT RX Input)	100MHz-18.0GHz	**100MHz-18.0GHz See Plot**	
6	J7 Input Power Level	-20dBm to -15dBm Typical	**-20dBm to -15dBm**	
7	J2 Output Frequency (RF RX Output)	100MHz-18.0GHz	**100MHz-18.0GHz See Plot**	
8	J2 Output Power Level	-62dBm to +8dBm Typical	**-60dBm to +15dBm**	
9	J6 Output Frequency (RF TX Output)	100MHz-18.0GHz	**100MHz-18.0GHz See Plot**	
10	J6 Output Power Level	0dBm to +10dBm Typical	**+7dBm to +14dBm**	
11	J1 RX Path Gain	18dB Typical	**20dB to 29dB**	
12	J7 RX BIT Path Insertion Loss	10dB Typical	**-3dB to -8dB**	
13	(J1 to J2) to (J7 to J2) RX Isolation	100dB Typical	**116.51dB See Plot**	
14	J5 TX Path Gain	32dB Typical	**33dB to 40dB**	
15	VSWR Over 90% Passband	2 : 1 Maximum	**2.0:1 See Plots**	PMI QA 2

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SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

16	Switching Speed	100ns Typical	**75.0ns See Plots**	PMI QA 2
17	Thru Channel Passband	100MHz-18.0GHz	**100MHz- 18.0GHz See Plots**	
18	Channel 1 Center Frequency	3400MHz	**3400MHz**	
19	Channel 1 3dB Bandwidth	2000MHz	**2000MHz**	
20	Channel 1 RX Rejection	-40dBc Typical, -30dBc Minimum 100MHz-2.0GHz, -40dBc Typical, -30dBc Minimum 4.8GHz-18.0GHz	**-51dBc See Plot -56dBc See Plot**	
21	Channel 1 TX Rejection	-40dBc Typical, -30dBc Minimum 100MHz-2.0GHz, -40dBc Typical, -30dBc Minimum 4.8GHz-18.0GHz	**-45dBc See Plot -58dBc See Plot**	
22	Channel 2 Center Frequency	5400MHz	**5400MHz**	
23	Channel 2 3dB Bandwidth	2000MHz	**2000MHz**	
24	Channel 2 RX Rejection	-40dBc Typical, -30dBc Minimum 100MHz-4.0GHz, -40dBc Typical, -30dBc Minimum 6.8GHz-18.0GHz	**-45dBc See Plot -34dBc See Plot**	
25	Channel 2 TX Rejection	-40dBc Typical, -30dBc Minimum 100MHz-4.0GHz, -40dBc Typical, -30dBc Minimum 6.8GHz-18.0GHz	**-40dBc See Plot -33dBc See Plot**	
26	Channel 3 Center Frequency	7400MHz	**7400MHz**	
27	Channel 3 3dB Bandwidth	2000MHz	**2000MHz**	
28	Channel 3 RX Rejection	-40dBc Typical, -30dBc Minimum 100MHz-6.0GHz, -40dBc Typical, -30dBc Minimum 8.8GHz-18.0GHz	**-83dBc See Plot -33dBc See Plot**	PMI QA 2

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SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

29	Channel 3 TX Rejection	-40dBc Typical, -30dBc Minimum 100MHz-6.0GHz, -40dBc Typical, -30dBc Minimum 8.8GHz-18.0GHz	**-69dBc** **See Plot** **-46dBc** **See Plot**	PMI QA 2
30	Channel 4 Center Frequency	9400MHz	**9400MHz**	
31	Channel 4 3dB Bandwidth	2000MHz	**2000MHz**	
32	Channel 4 RX Rejection	-40dBc Typical, -30dBc Minimum 100MHz-8.0GHz, -40dBc Typical, -30dBc Minimum 10.8GHz-18.0GHz	**-33dBc** **See Plot** **-37dBc** **See Plot**	
33	Channel 4 TX Rejection	-40dBc Typical, -30dBc Minimum 100MHz-8.0GHz, -40dBc Typical, -30dBc Minimum 10.8GHz-18.0GHz	**-40dBc** **See Plot** **-34dBc** **See Plot**	
34	Channel 5 Center Frequency	11400MHz	**11400MHz**	
35	Channel 5 3dB Bandwidth	2000MHz	**2000MHz**	
36	Channel 5 RX Rejection	-40dBc Typical, -30dBc Minimum 100MHz-10.0GHz, -40dBc Typical, -30dBc Minimum 12.8GHz-18.0GHz	**-60dBc** **See Plot** **-52dBc** **See Plot**	
37	Channel 5 TX Rejection	-40dBc Typical, -30dBc Minimum 100MHz-10.0GHz, -40dBc Typical, -30dBc Minimum 12.8GHz-18.0GHz	**-74dBc** **See Plot** **-47dBc** **See Plot**	
38	Control Logic	TTL '0': 0V to 0.8V TTL '1': 2V to 5V	**Pass**	
39	Power Supplies	+12V @ 600mA Max +5V @ 550mA Max -12V @ 300mA Max	**+12V @ 410mA** **+5V @ 91mA** **-12V @ 150mA**	PMI QA 2

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SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

QA/QC Approval: PMI QA 2 **Date:** 3/7/17

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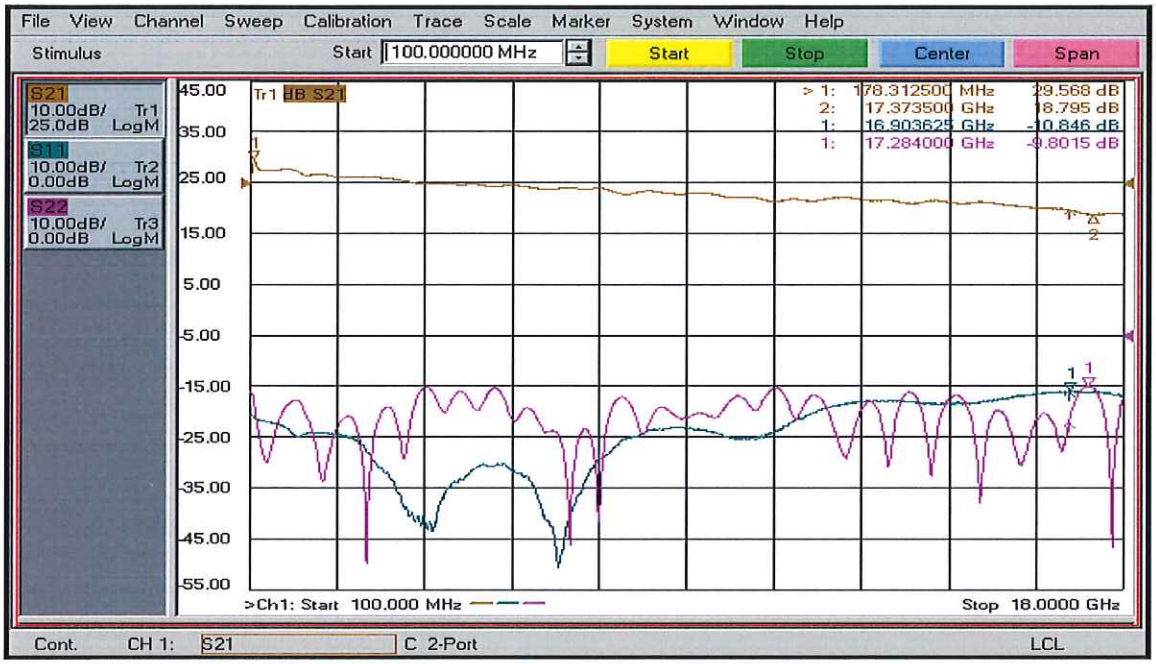
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

RX High Gain Thru Path (J1 RX IN)



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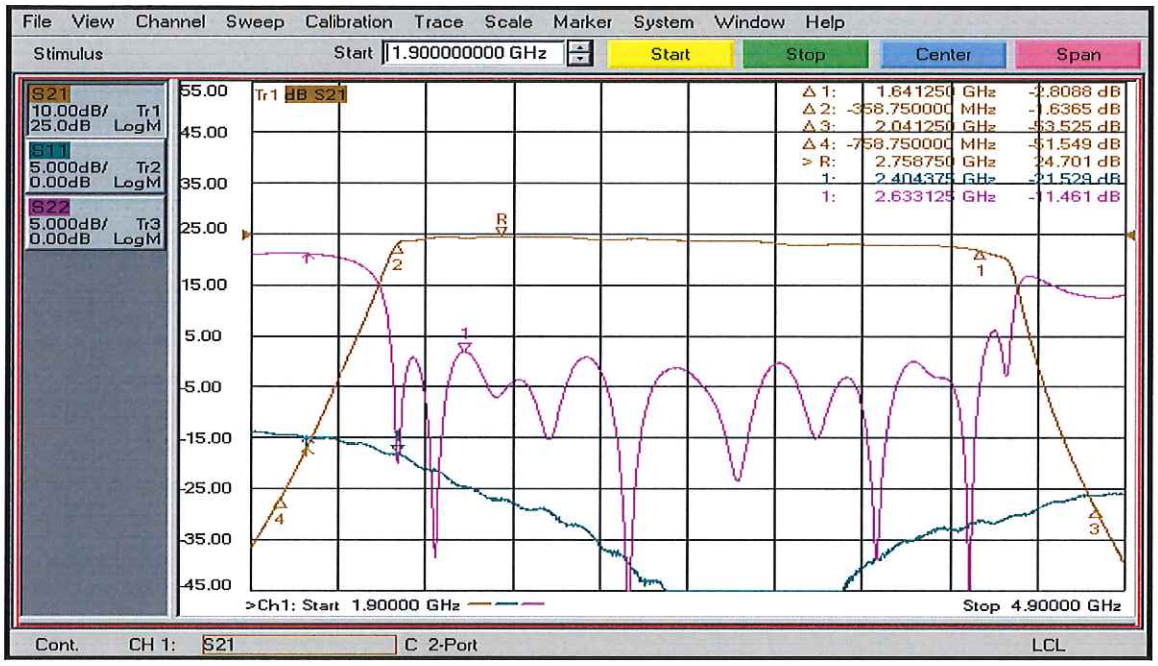
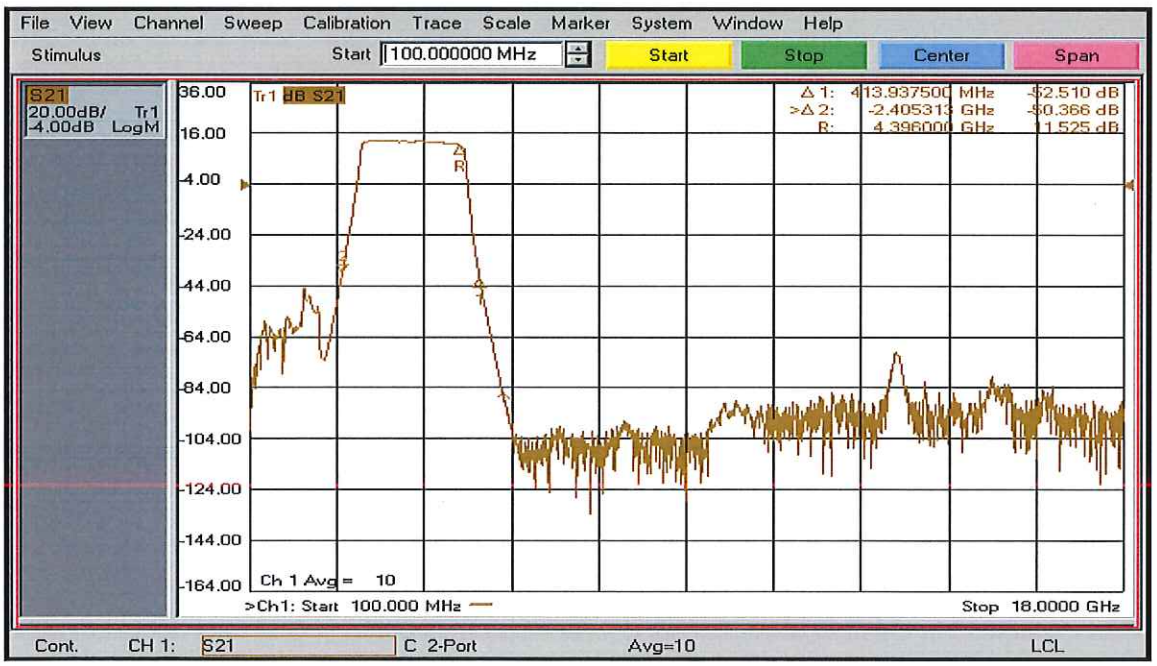
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

RX Ch1 High Gain Path Narrow Band (J1 RX IN)



RX Ch1 High Gain Path Broadband (J1 RX IN)



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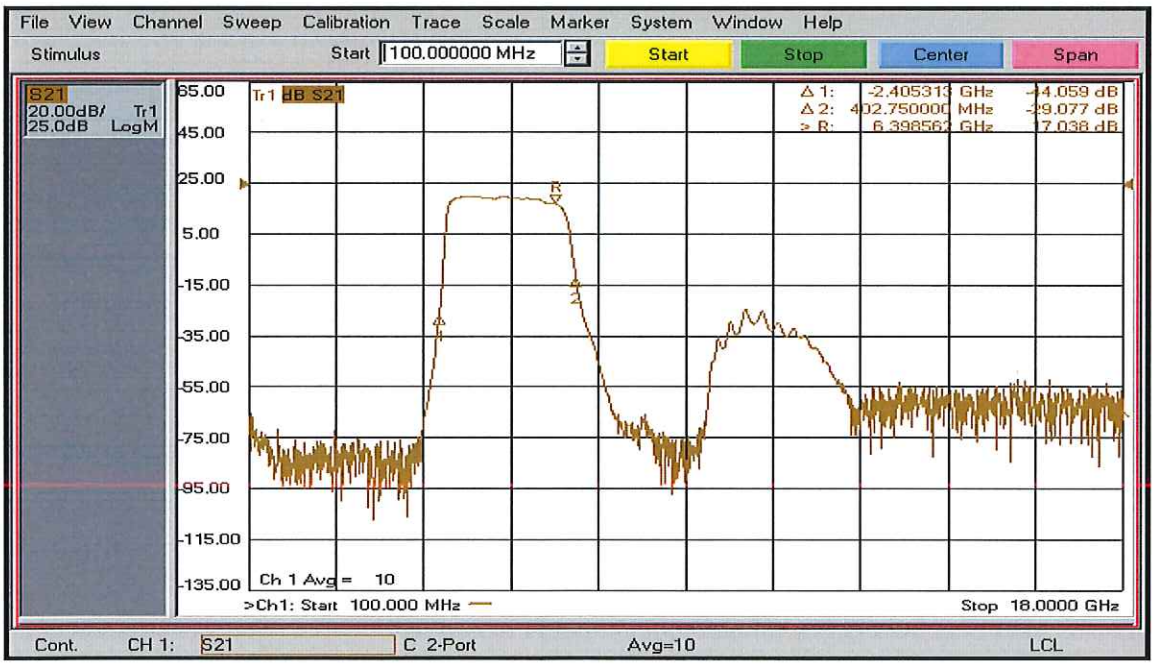
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

RX Ch2 High Gain Path Narrow Band (J1 RX IN)

RX Ch2 High Gain Path Broadband (J1 RX IN)



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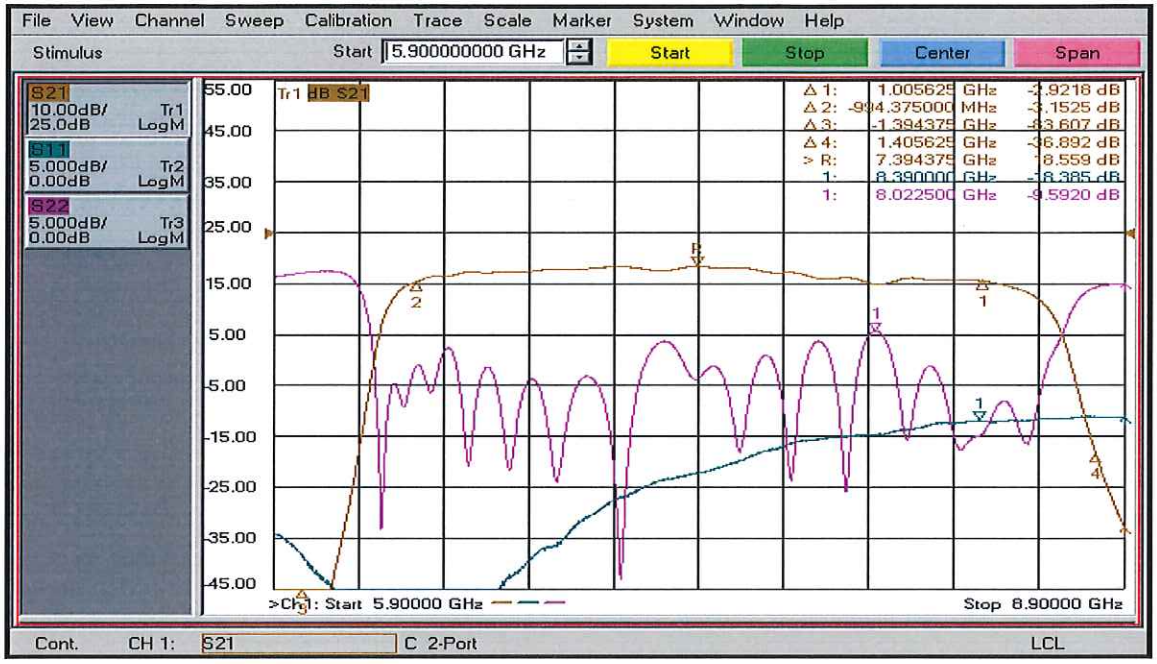
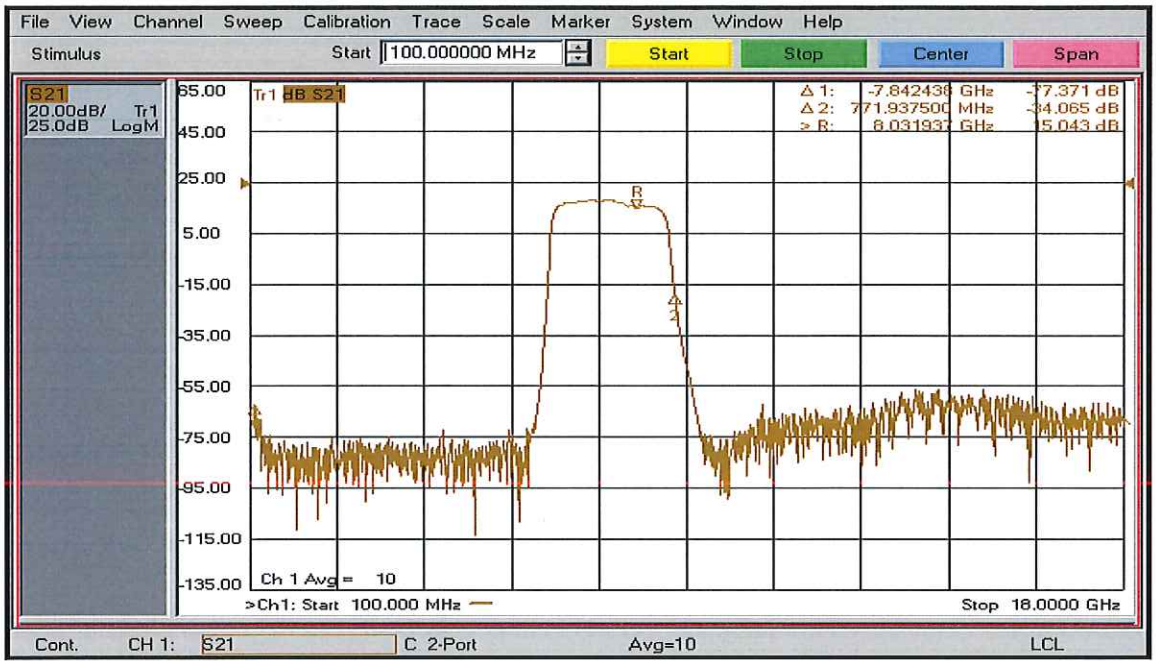
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

RX Ch3 High Gain Path Narrow Band (J1 RX IN)



RX Ch3 High Gain Path Broadband (J1 RX IN)



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SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

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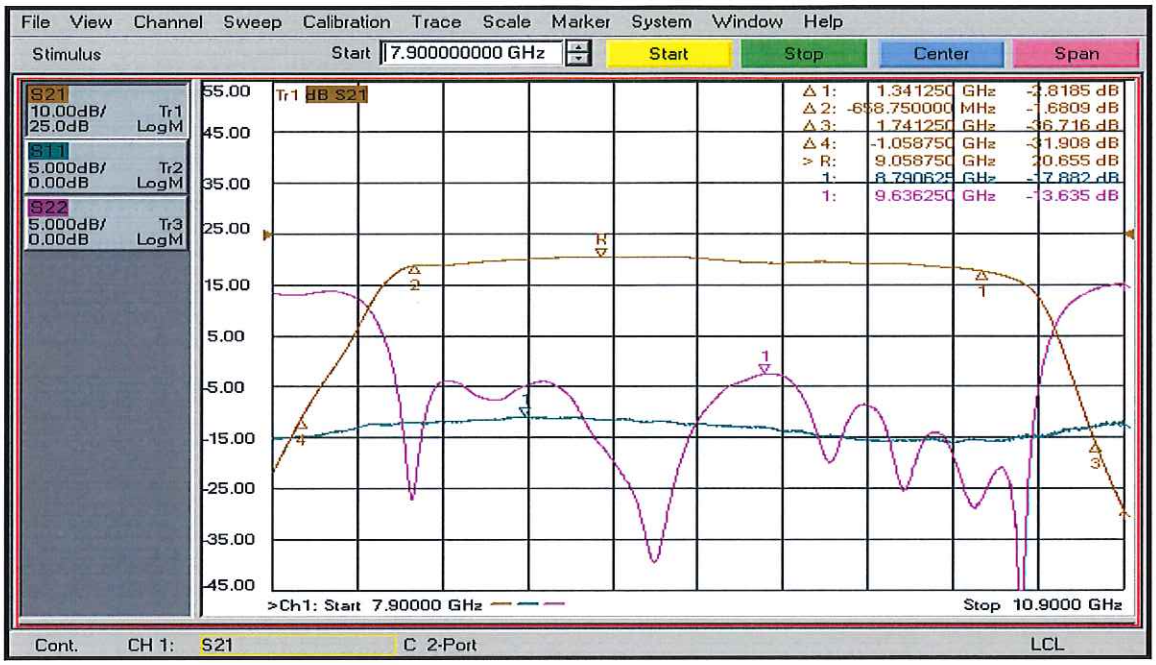
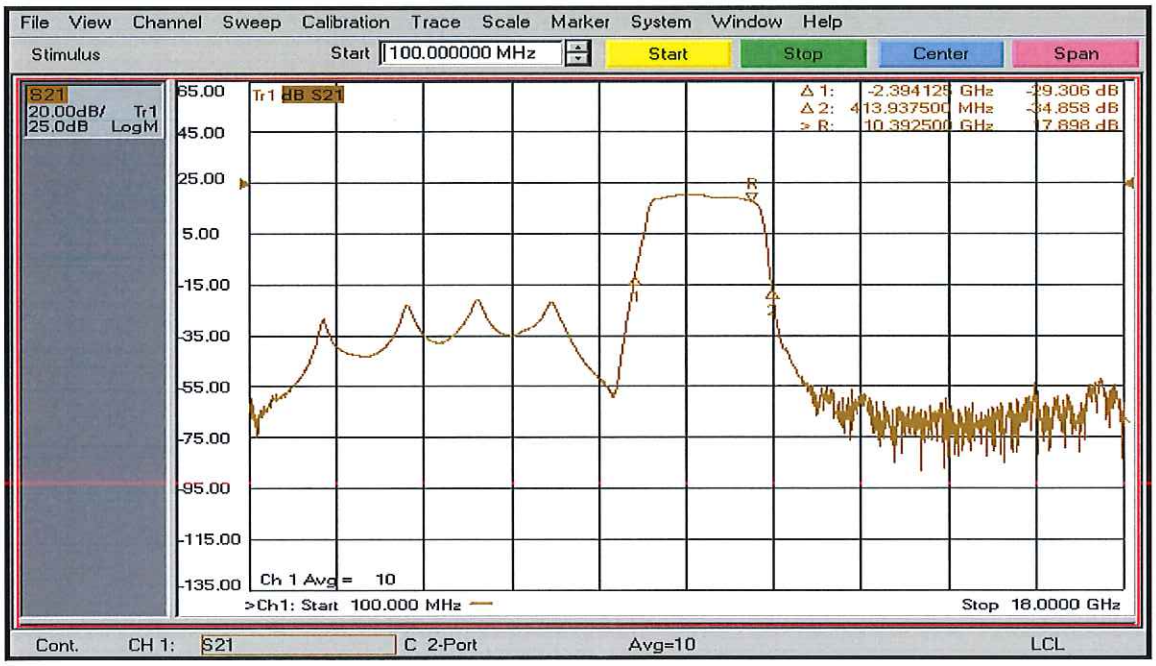
RX Ch4 High Gain Path Narrow Band (J1 RX IN)



RX Ch4 High Gain Path Broadband (J1 RX IN)



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SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

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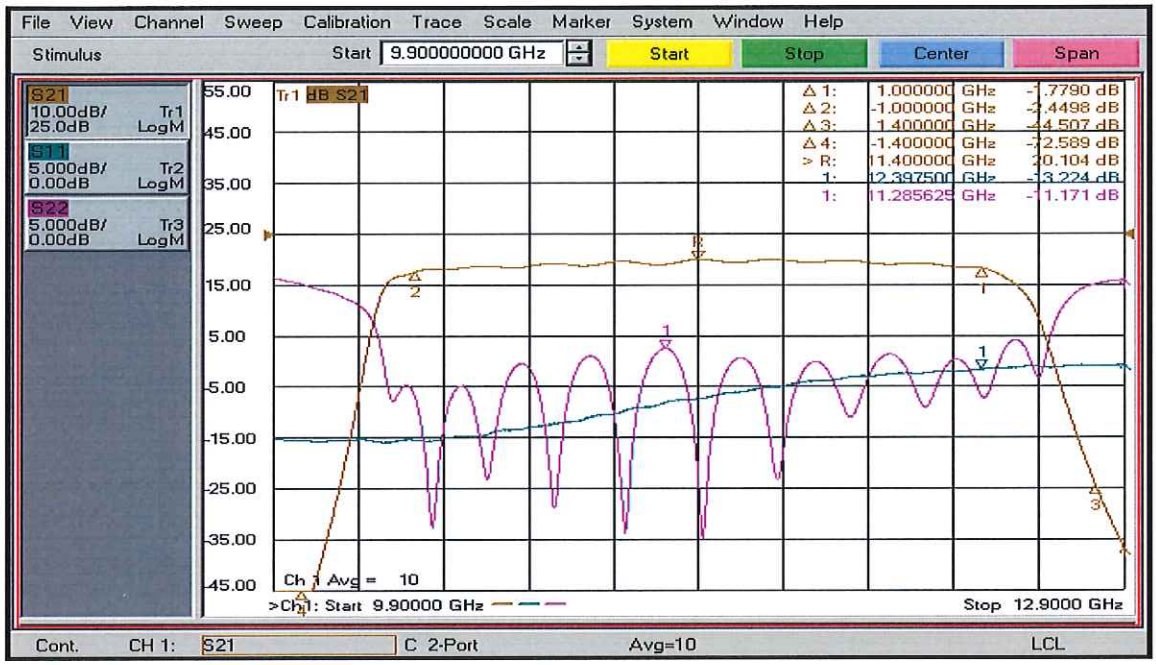
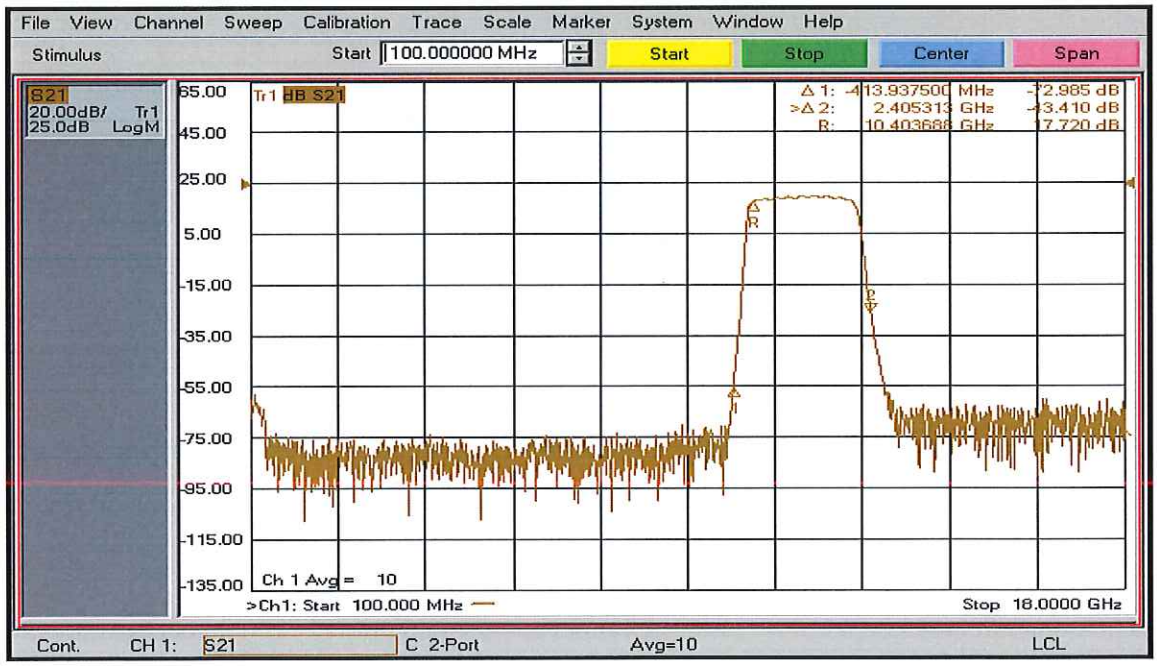
RX Ch5 High Gain Path Narrow Band (J1 RX IN)



RX Ch5 High Gain Path Broadband (J1 RX IN)



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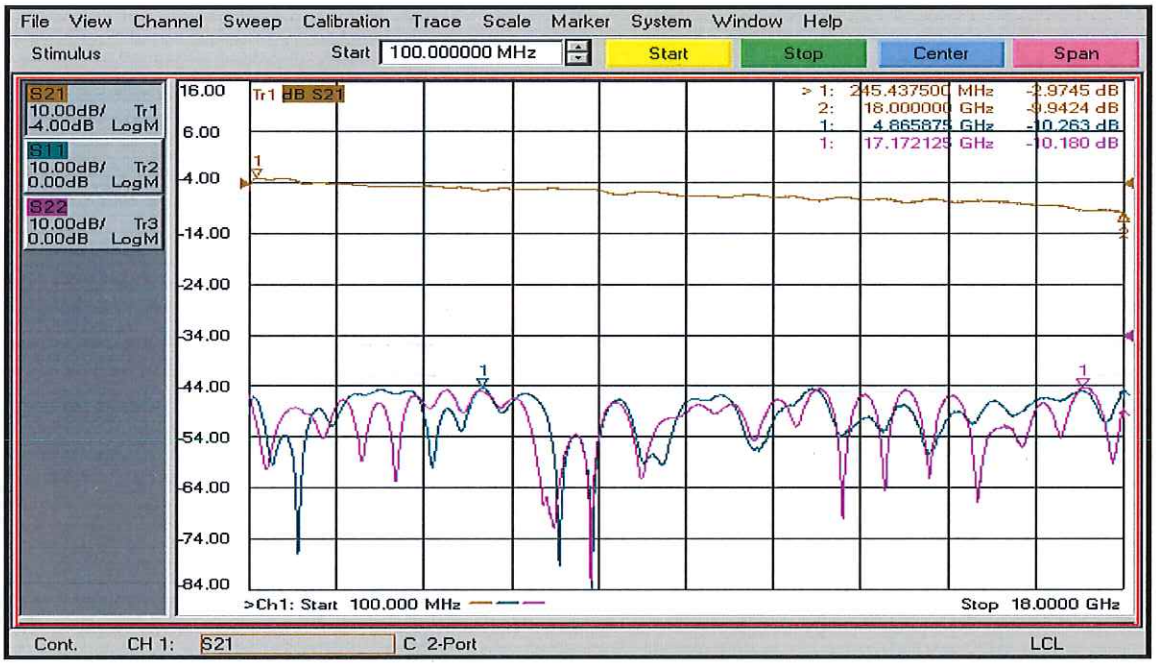
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

RX Low Gain Thru Path (J7 RX BIT IN)



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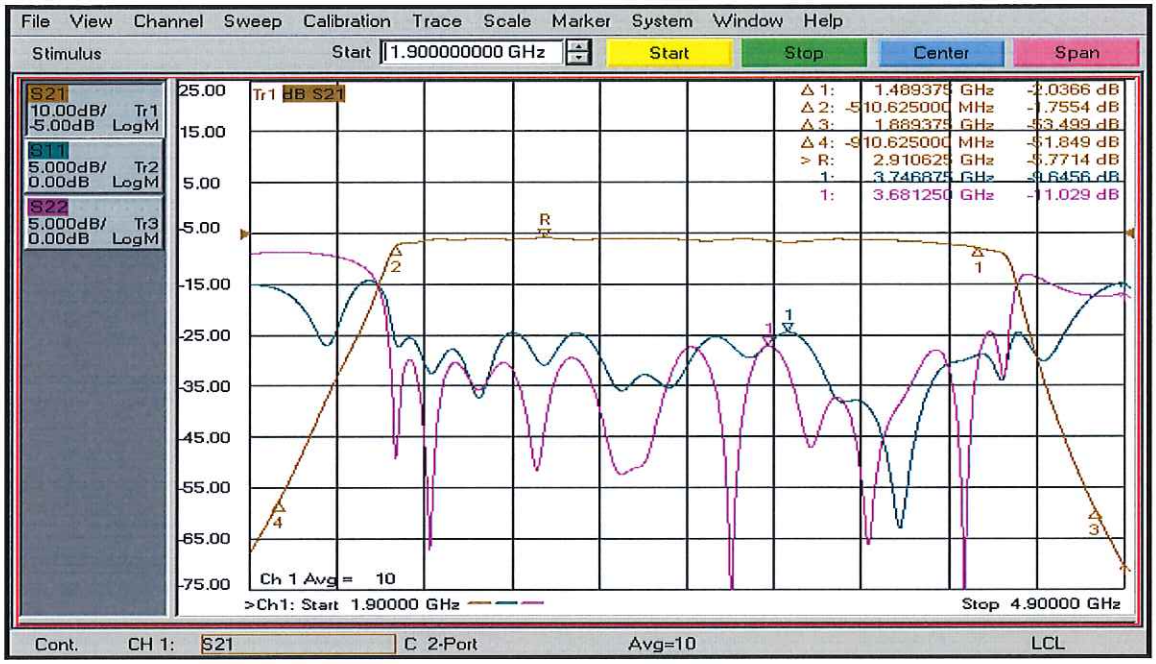
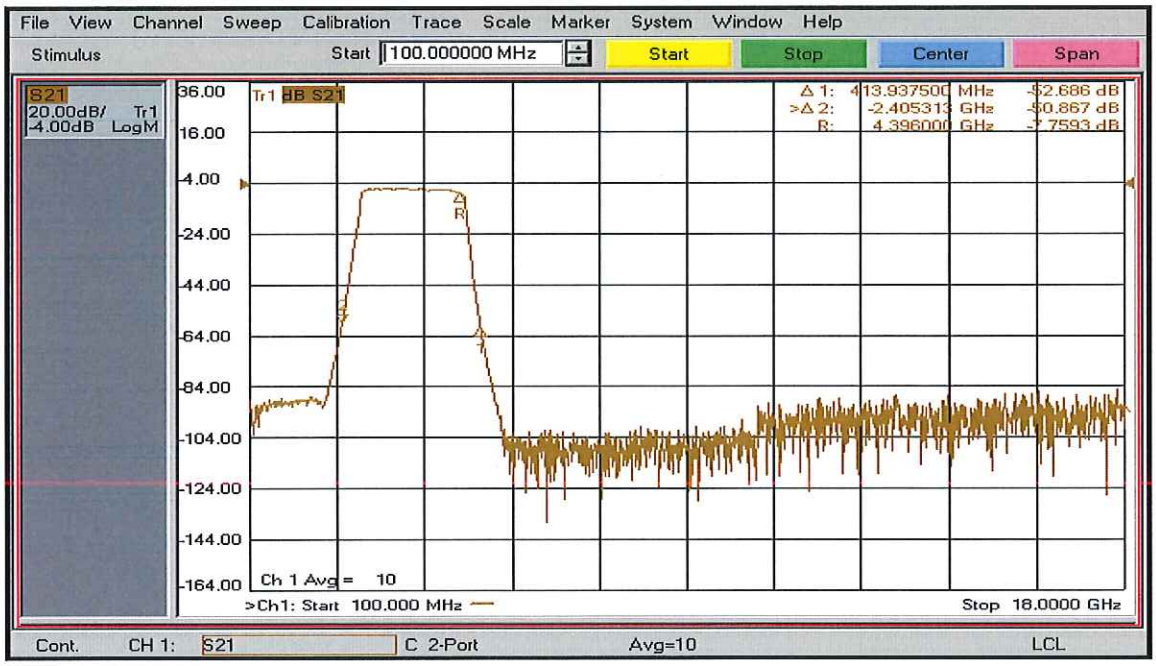
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

RX Ch1 Low Gain Path Narrow Band (J7 RX BIT IN)



RX Ch1 Low Gain Path Broadband (J7 RX BIT IN)



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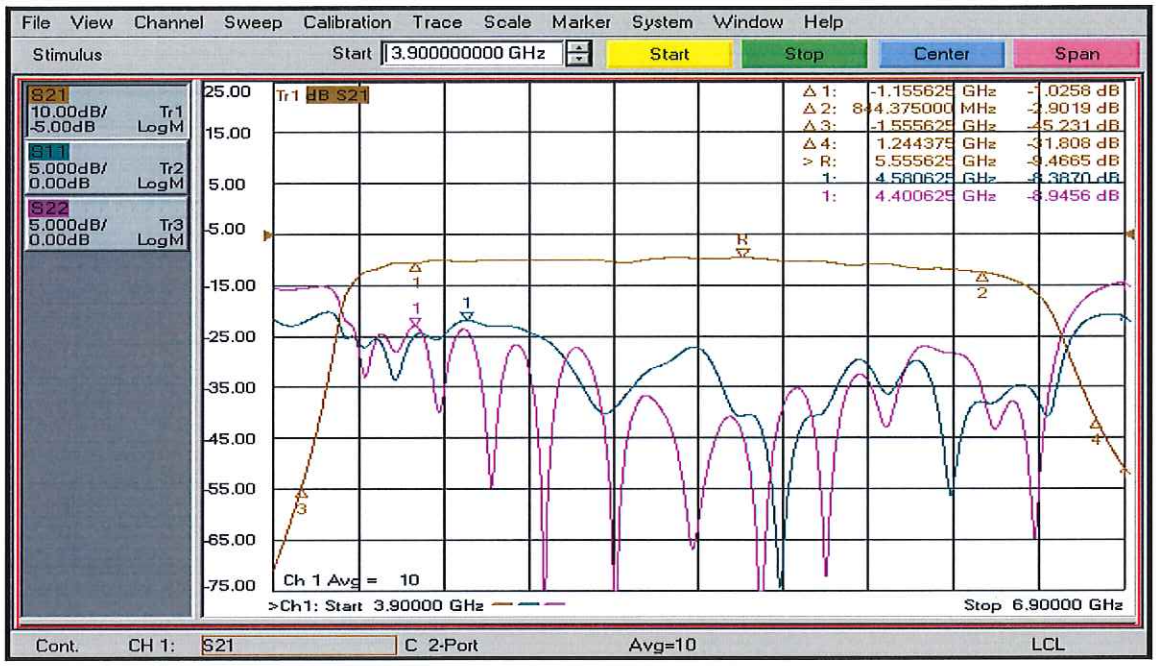
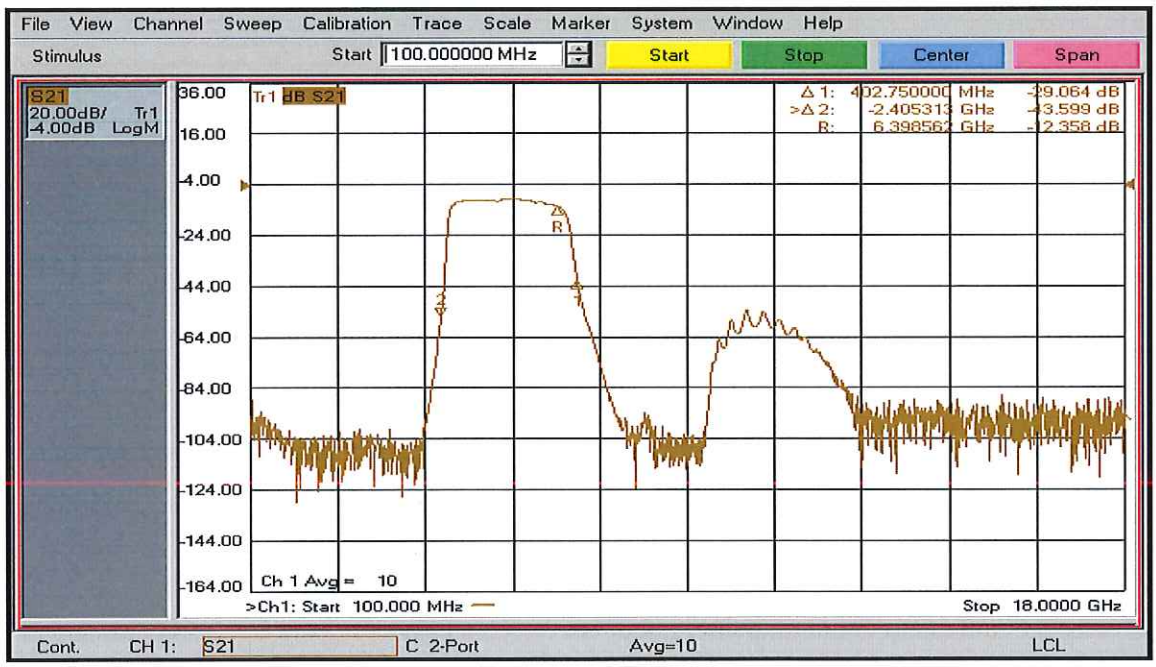
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

RX Ch2 Low Gain Path Narrow Band (J7 RX BIT IN)



RX Ch2 Low Gain Path Broadband (J7 RX BIT IN)



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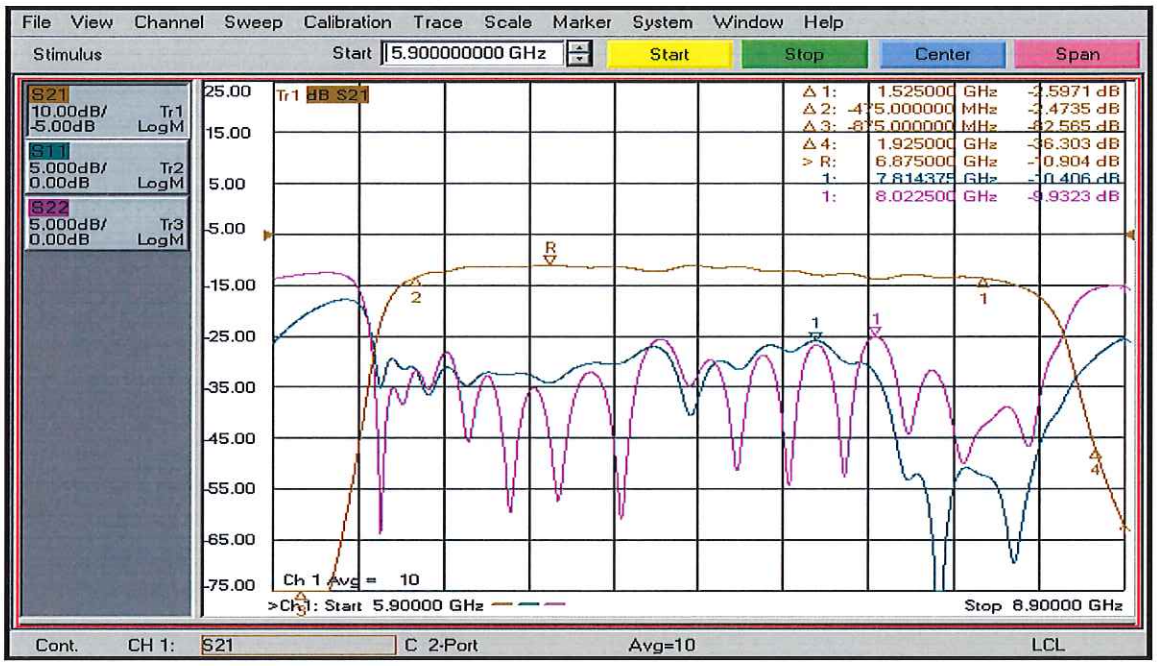
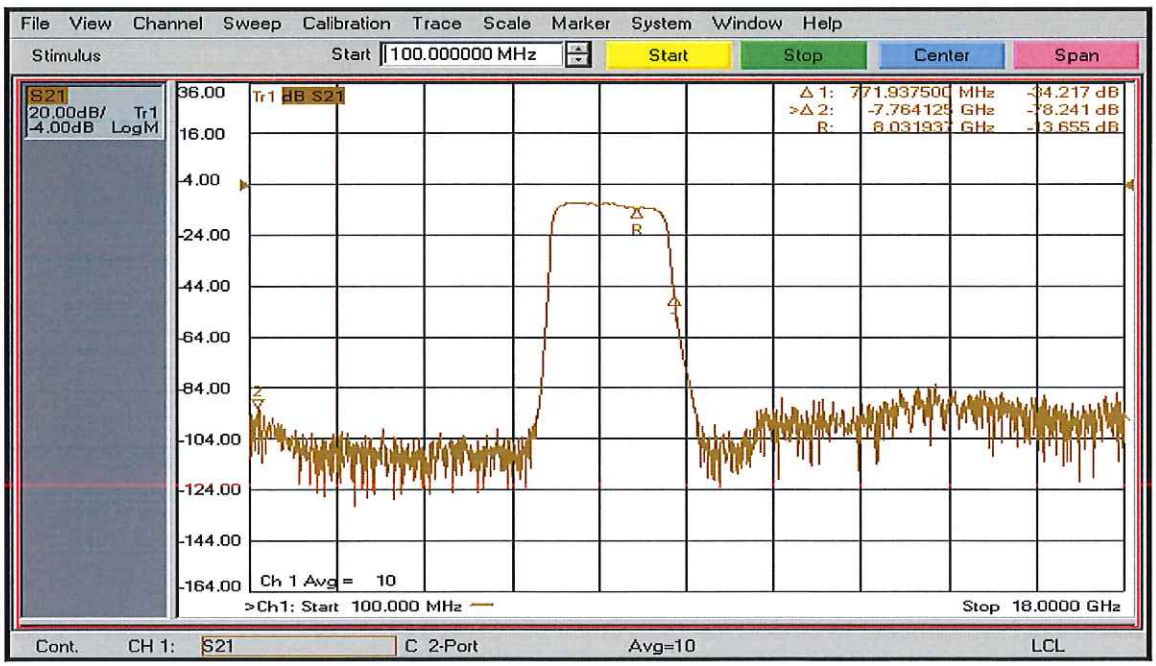
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

RX Ch3 Low Gain Path Narrow Band (J7 RX BIT IN)



RX Ch3 Low Gain Path Broadband (J7 RX BIT IN)



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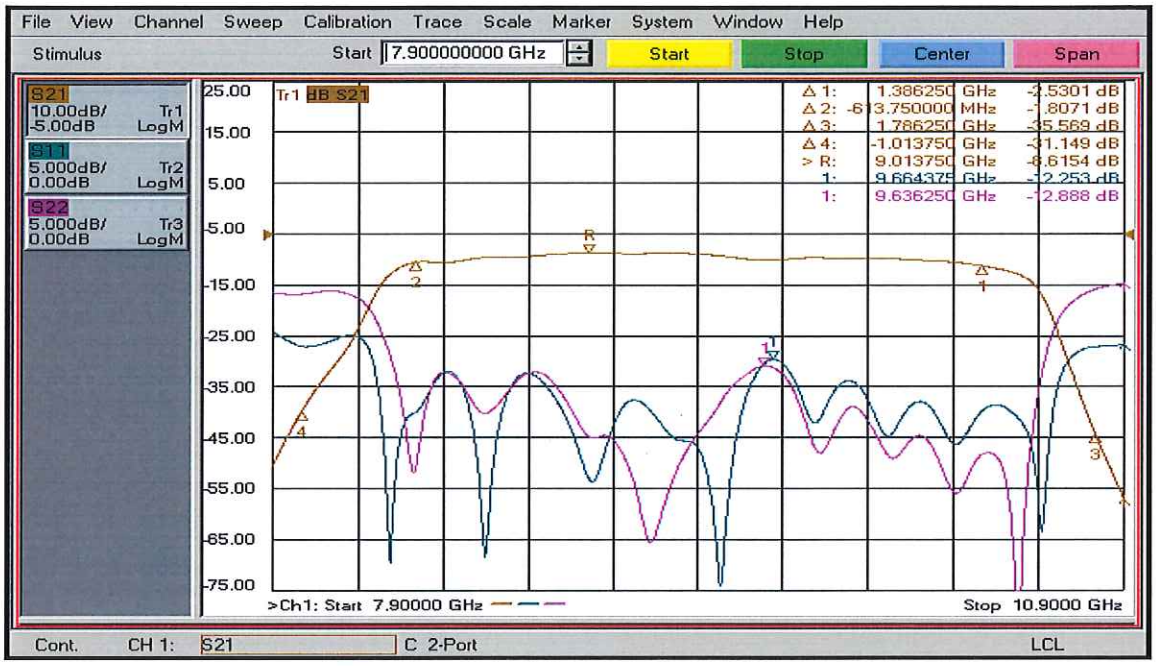
Email: sales@pmi-rf.com

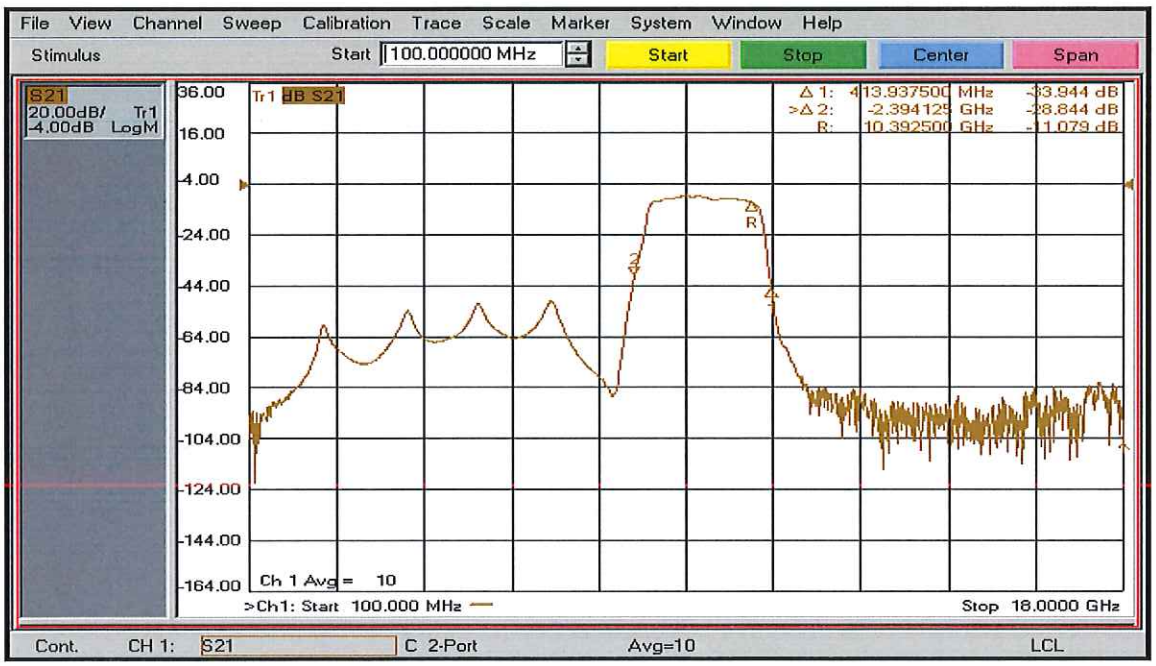
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

RX Ch4 Low Gain Path Narrow Band (J7 RX BIT IN)



RX Ch4 Low Gain Path Broadband (J7 RX BIT IN)



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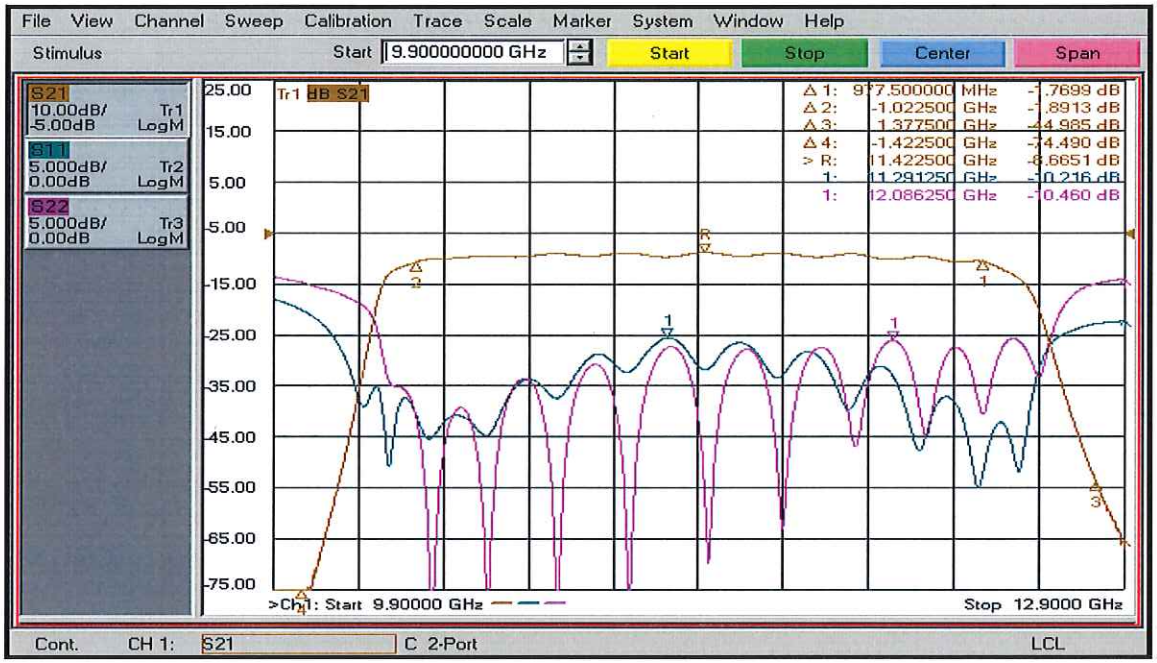
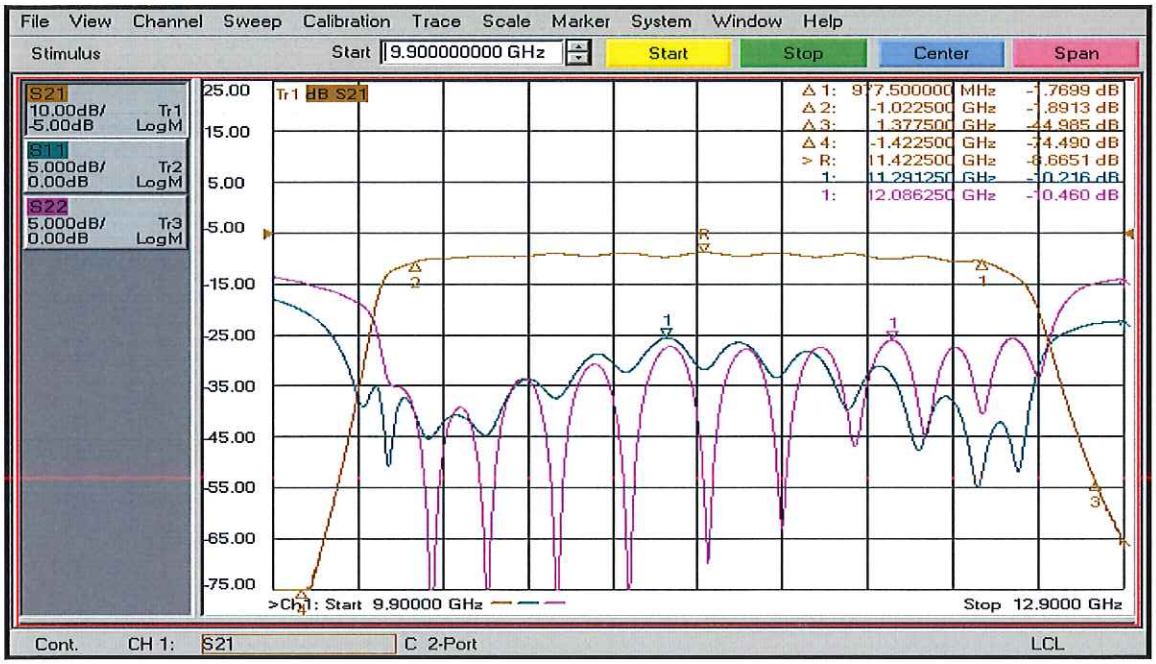
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

RX Ch5 Low Gain Path Narrow Band (J7 RX BIT IN)



RX Ch5 Low Gain Path Broadband (J7 RX BIT IN)



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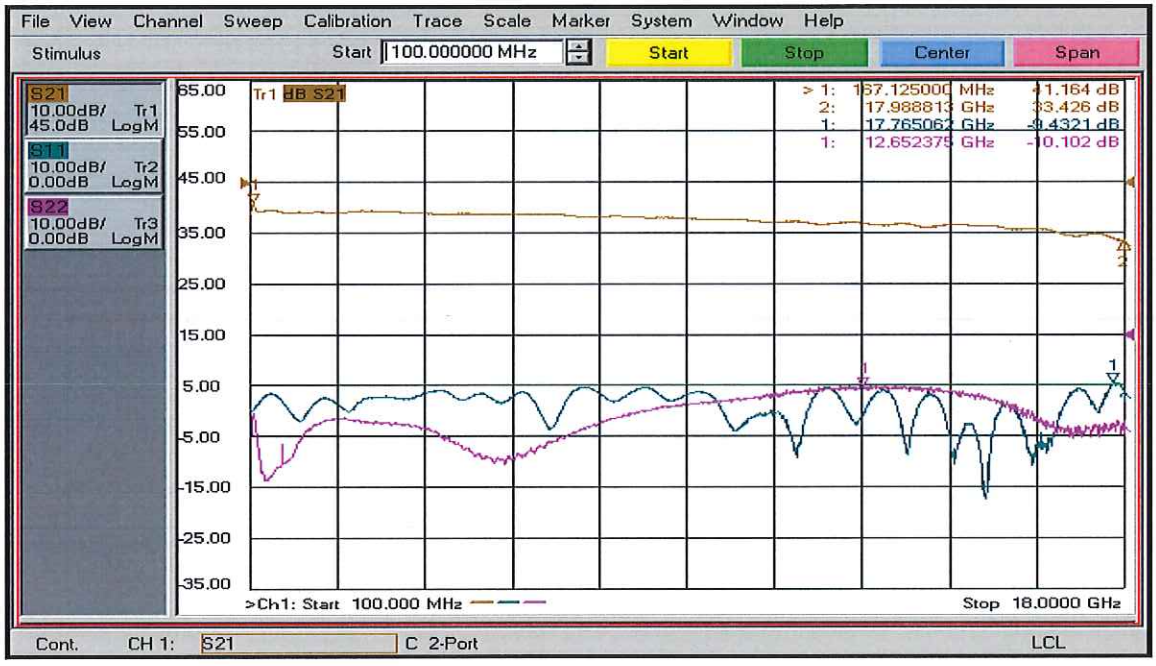
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

TX Thru Path



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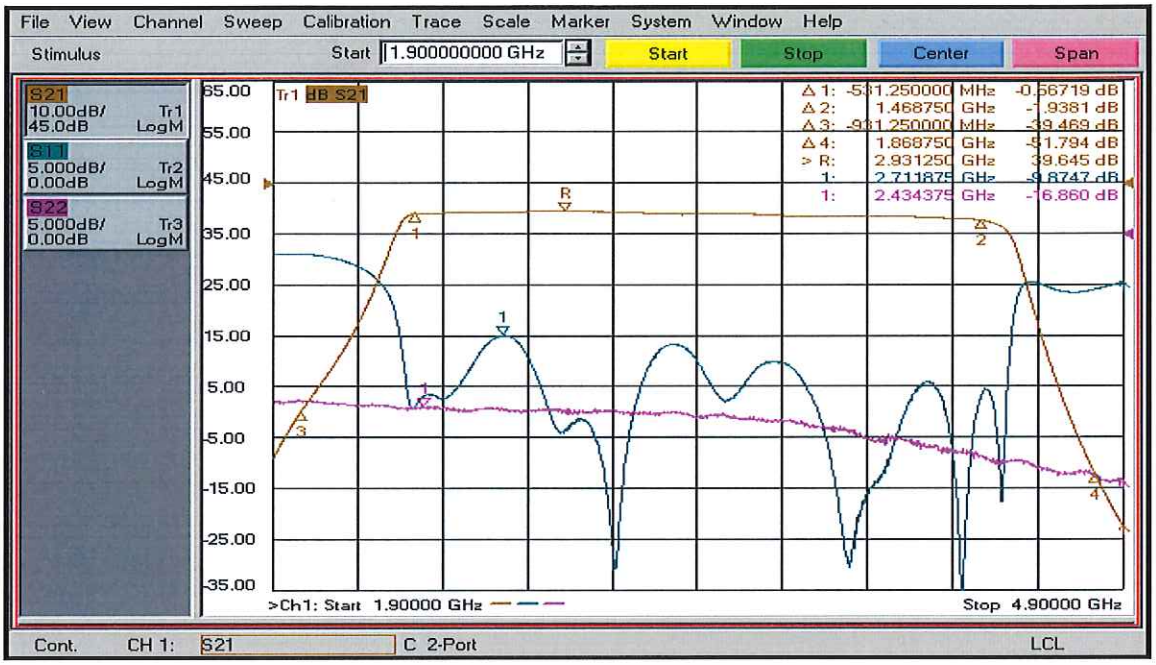
Email: sales@pmi-rf.com

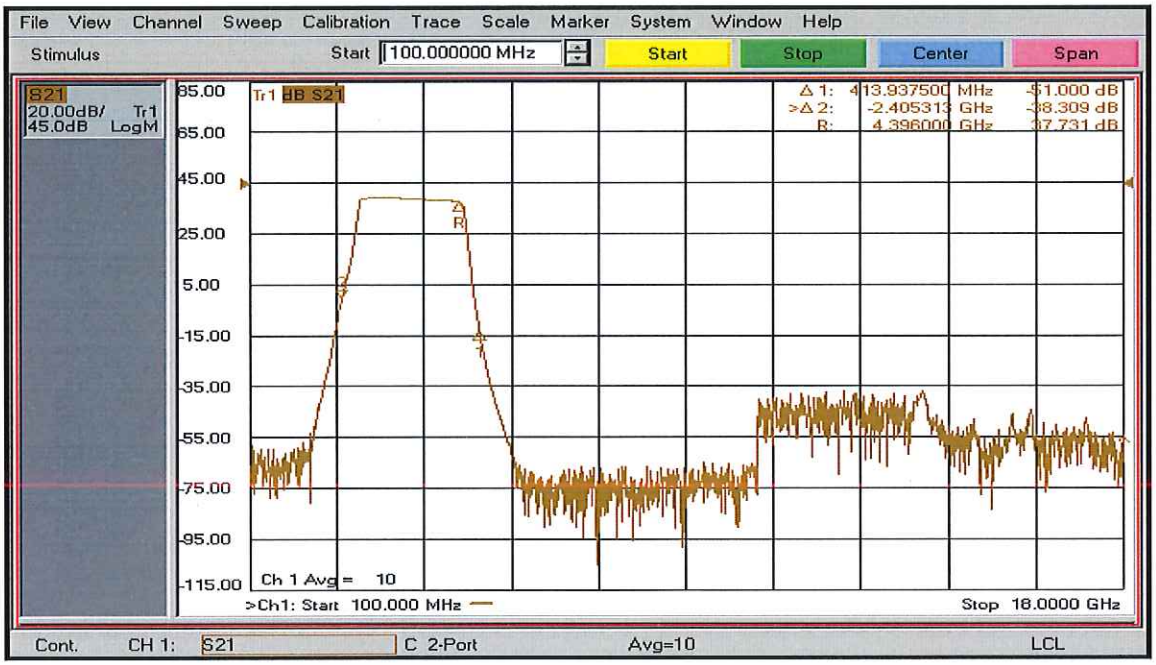
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

TX Ch1 Path Narrow Band



TX Ch1 Path Broadband



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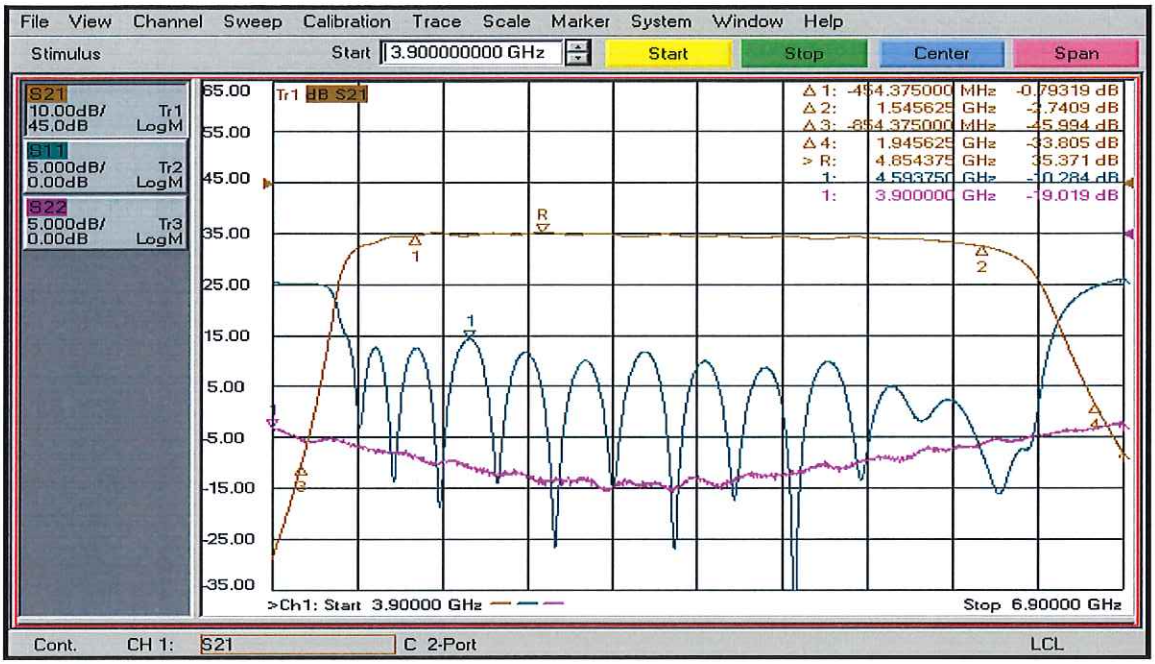
Email: sales@pmi-rf.com

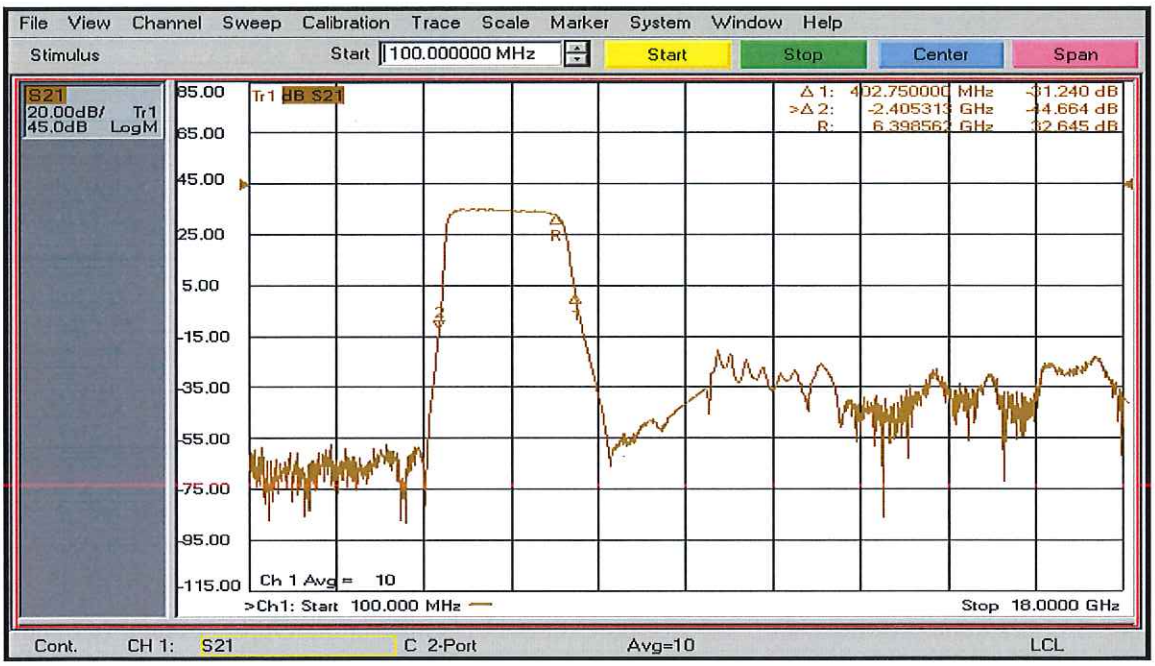
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

TX Ch2 Path Narrow Band



TX Ch2 Path Broadband



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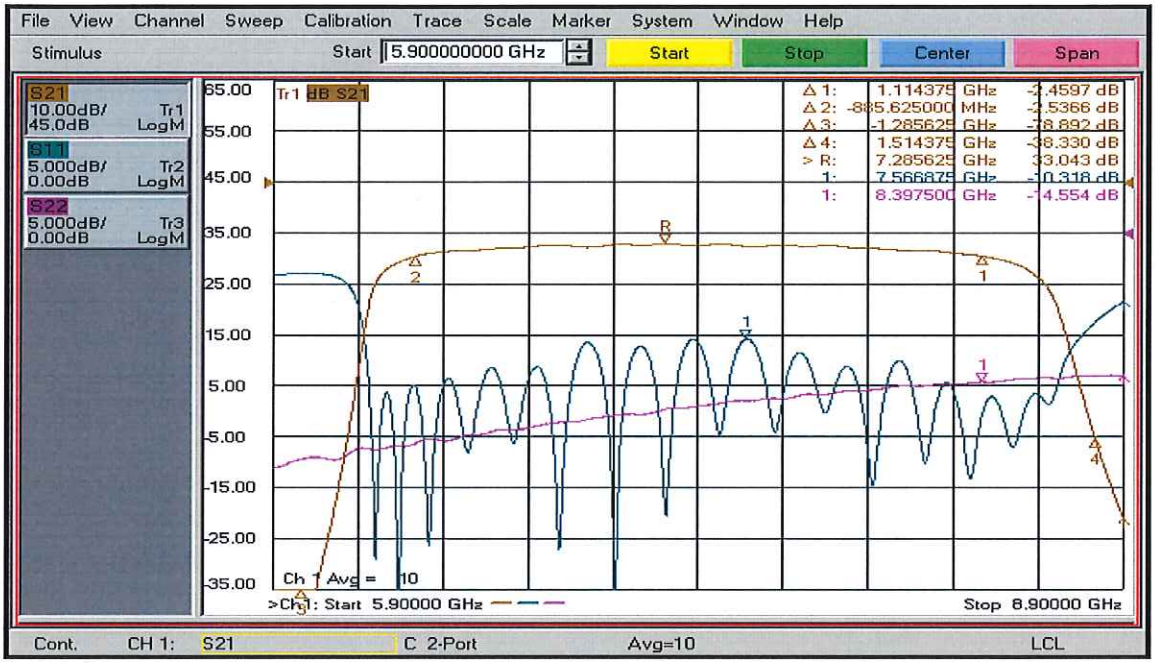
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

TX Ch3 Path Narrow Band



TX Ch3 Path Broadband

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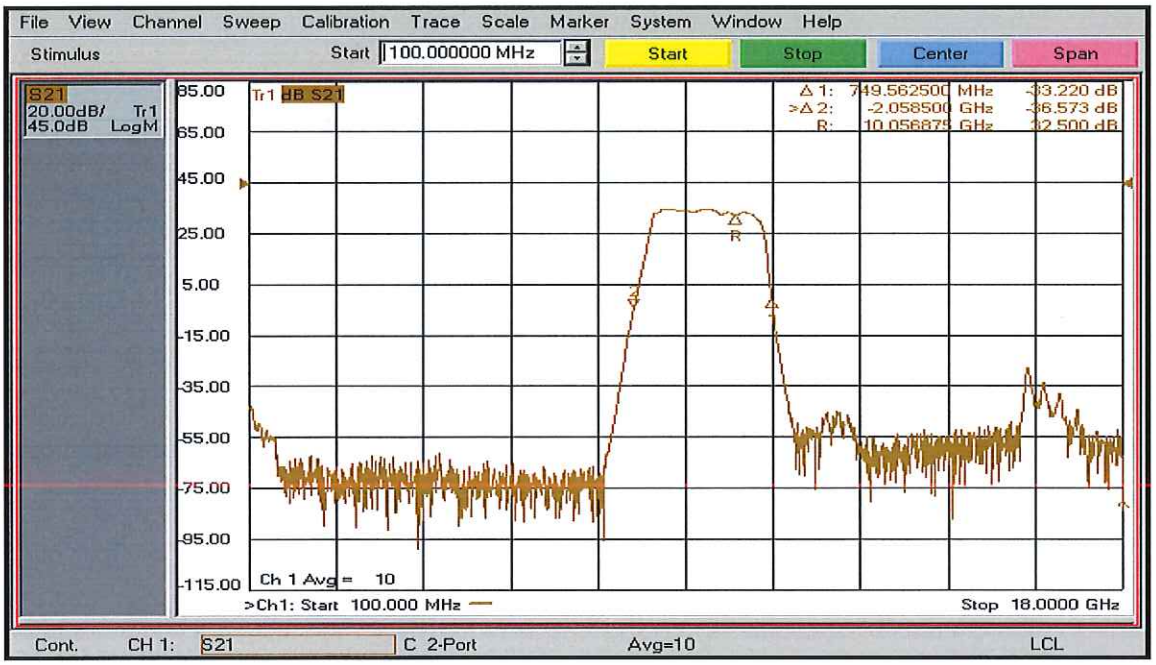
SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

TX Ch4 Path Narrow Band

TX Ch4 Path Broadband



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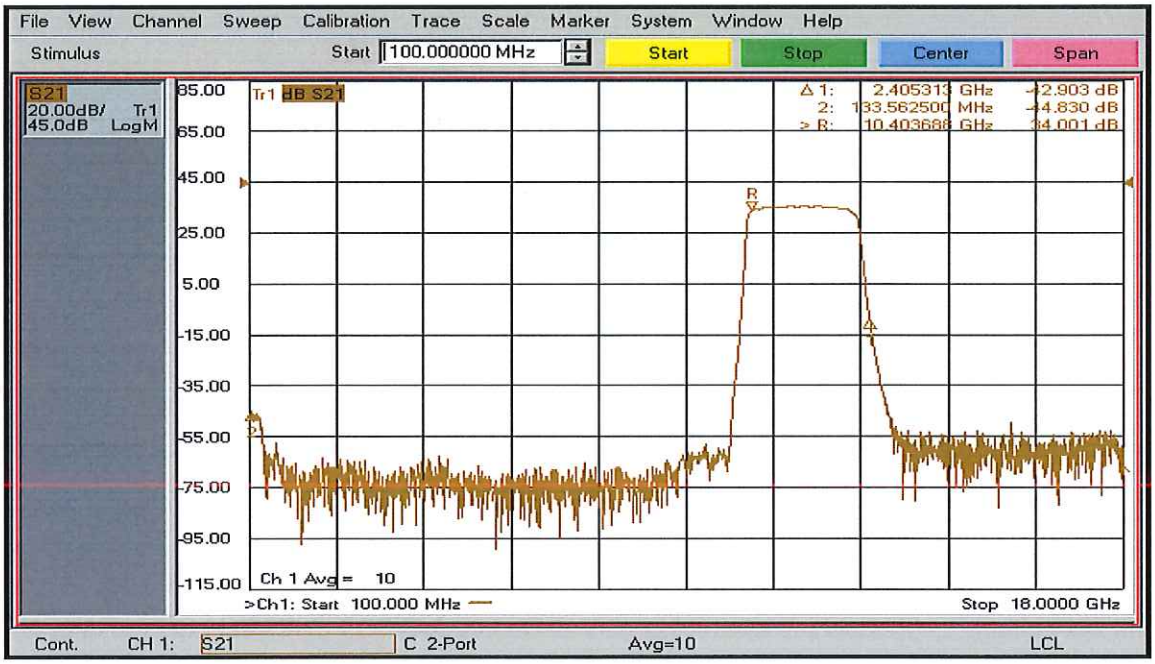
Email: sales@pmi-rf.com

SUMMARY TEST DATA
ON
6SFB-CC-100M18G-MAH-RX-TX

PL20382/1702

TX Ch5 Path Narrow Band

TX Ch5 Path Broadband



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Email: sales@pmi-rf.com

SUMMARY TEST DATA
ON
PTRAN-CC-100M18G-70-MAH

PL20388/1702

Customer:		**Tested By:**	RLCombs
SO No:		**Temperature:**	+25°C
Model No:	PTRAN-CC-100M18G-70-MAH	**Date:**	2/13/17
Serial No:	PL20388/1702	**Drawing No:**	27624305 **Rev:** A1

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	J2 Input Frequency (RF RX Input)	100MHz–18.0GHz	**100MHz-18.0GHz**	PMI QA 2
2	J2 Input Power Level	-62dBm to +8dBm Typical	**-62dBm to +8dBm**	
3	J4A Input Frequency (IF1 Input)	100MHz-4GHz	**100MHz-4GHz**	
4	J4A Input Power Level	0dBm Typ.	**0dBm**	
5	J4B Input Frequency (IF2 Input)	100MHz-4GHz	**100MHz-4GHz**	
6	J4B Input Power Level	0dBm Typ.	**0dBm**	
7	J9 Input Frequency (LO1 Input)	4GHz-20GHz	**4GHz-20GHz**	
8	J9 Input Power Level	+10dBm Typ.	**+10dBm**	
9	J10 Input Frequency (LO2 Input)	4GHz-20GHz	**4GHz-20GHz**	
10	J10 Input Power Level	+10dBm Typ.	**+10dBm**	
11	J3A Output Frequency (IF1 Output)	100MHz-4GHz	**100MHz-4GHz**	
12	J3A Output Power Level	0dBm Typ. for Limited SDLVA Ch	**+2.3dBm**	
13	J3B Output Frequency (IF2 Output)	100MHz-4GHz	**100MHz-4GHz**	
14	J3B Output Power Level	0dBm Typ. for Limited SDLVA Ch	**+2.4dBm**	
15	J5 Output Frequency (RF Transmit Output)	100MHz-18GHz	**100MHz-18GHz**	
16	J5 Output Power Level	-20dBm to -15dBm Typ. for 0 dB Attenuation	**-27.6dBm**	PMI QA 2

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Email: sales@pmi-rf.com

SUMMARY TEST DATA
ON
PTRAN-CC-100M18G-70-MAH

PL20388/1702

17	J7 Output Frequency (RF Transmit BIT Output)	100MHz-18GHz	**100MHz-18GHz**	PMI QA 2
18	J7 Output Power Level	-20dBm to -15dBm Typ. for 0 dB Attenuation	**-25.0dBm**	
19	Attenuation Range	0 to 31 dB Attenuation in 1 dB Typ. steps	**31dB**	
20	J8 Output Frequency (TX Sample Output)	100MHz-18GHz	**100MHz-18GHz**	
21	J8 Output Power Level	-40dBm to -30dBm Typ.	**-32 to -38dBm**	
22	Power Supply	+12V @ 2A Typ. +5V @ 1.5A Typ. +3.3V @ 0.5A Typ. -12V @ 1A Typ.	**+12V @ 0.56A** **+5V @ 0.53A** **+3.3V @ 0.03A** **-12V @ 0.62A**	PMI QA 2
23	SDLVA Data Attached	**SDLVA-100M18G-CW-70-MAH Serial Number PL20376/1702**		

QA/QC Approval: _____ PMI QA 2 **Date:** 3/7/17

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Email: sales@pmi-rf.com

SUMMARY TEST DATA
ON
SDLVA-100M18G-CW-70-MAH

PL20376/1702

Customer:		**Tested By:**	RCombs
SO No:		**Temperature:**	+25°C
Model No:	SDLVA-100M18G-CW-70-MAH	**Date:**	2/14/17
Serial No:	PL20376/1702	**Drawing No:**	27623180 **Rev:** A1

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
1	Frequency Range	100 MHz-18GHz	**100 MHz-18GHz**	PMI QA 2
2	Frequency Flatness	±2.0 dB Max.	**±1.8dB**	
3	TSS	-68 dBm Min., -70 dBm Typ.	**-68 dBm**	
4	Limited Output Power (Input Power ≥ -65dBm)	+8 dBm ±3.0dBm Max.	**+5.2 to +10.5dBm**	
5	VSWR	2.0:1 Max.	**1.75:1**	
6	Linear Output Gain	43dB ±3.0dB Max.	**40.8 to 42.8 dB**	
7	Linear Output Psat	+3 dBm ±3.0dB Max.	**2.6 to 5.7 dBm**	
8	V0 (Video Comparator Signal Amplitude)	3.3V Typ.	**2.25V**	
9	Video Comparator External Threshold Level	Adjustable with Analog Voltage (2 Times V1)	Adjustable withAnalog Voltage(2 Times V1)	
10	Video Comparator Delay	50 ns Typ.	**41 ns**	
11	V1 (Log Video Signal Amplitude)	1 Volt Max.	**0.820 Volts**	
12	Log Slope	10mV/dB into a 50Ω load (±1mV) Max.	**10.2mV/dB**	
13	Log Range	-65 to +5 dBm Min.	**-65 to +5 dBm**	PMI QA 2

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SUMMARY TEST DATA
ON
SDLVA-100M18G-CW-70-MAH

PL20376/1702

TEST ITEM NO:	PARAMETERS	SPECIFIED VALUE	MEASURED VALUE	REMARKS QA/QC
14	Log Linearity	±1.75dB (-40°C to +85°C) Max.	**±1.43dB**	PMI QA 2
15	Pulse Range	100ns to 250µs	**100ns to 250µs**	
16	Rise Time	35ns Max.	**31ns**	
17	Settling time to ±1dB	50ns Typ.	**46ns**	
18	Recovery Time	350ns Max.	**300ns**	
19	CW Immunity Range	TSS to -45 dBm (1dB degradation)	**0.8dB**	
20	Pulse Considered CW	1ms Typ.	**0.7ms**	
21	Rejection Time	1ms Typ.	**0.5ms**	
22	Droop	1dB Max.	**0dB**	
23	SPST Isolation	70dB Typ.	**≥ 70dB**	
24	SPST Switch Speed	20ns Typ.	**20ns Typ.**	
25	Power Supply	±12VDC to ±15VDC	**±12VDC to ±15VDC**	PMI QA 2

QA/QC Approval: PMI QA 2 **Date:** 3/7/17

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Email: sales@pmi-rf.com

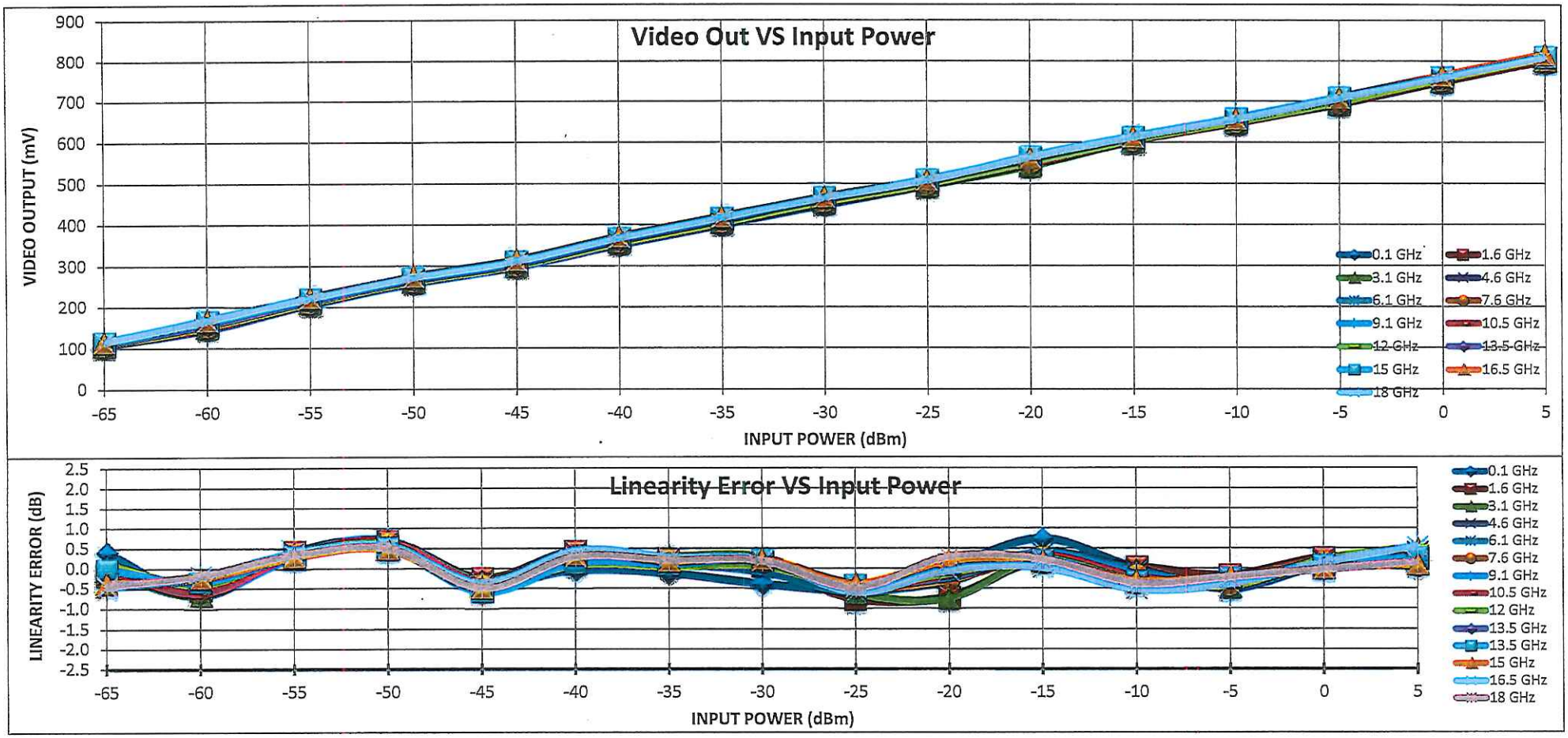
APPENDIX C

LOG TRANSFER VS FREQUENCY
MODEL: SDLVA-100M18G-CW-70-MAH
TESTED BY: Rcombs
DATE: 2-14-17
SERIAL NO: PL20376

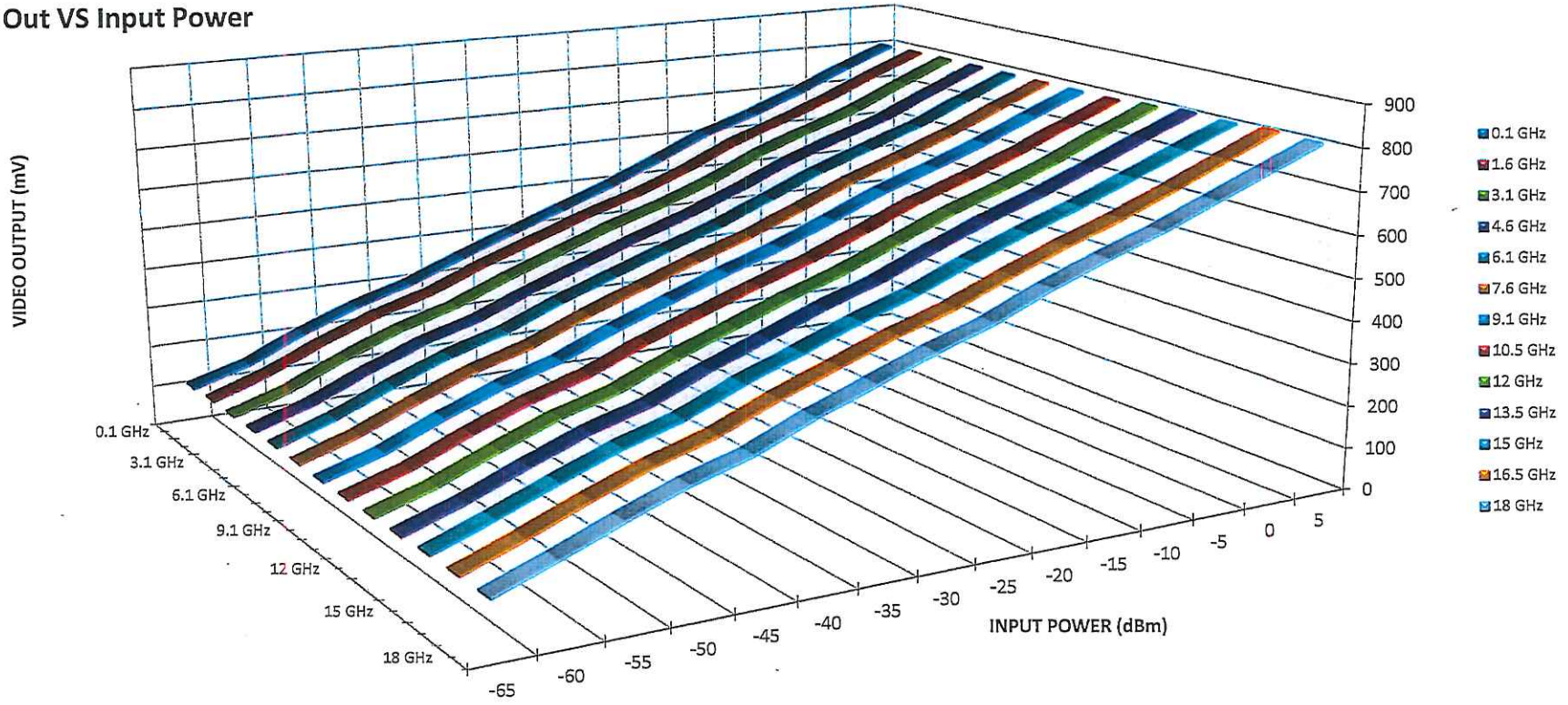
Test Temp: +25C
Graph 2A

PLANAR MONOLITHICS INDUSTRIES
7311-F GROVE ROAD, FREDERICK, MD 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
URL: WWW.PMI-RF.COM
EMAIL: SALES@PMI-RF.COM

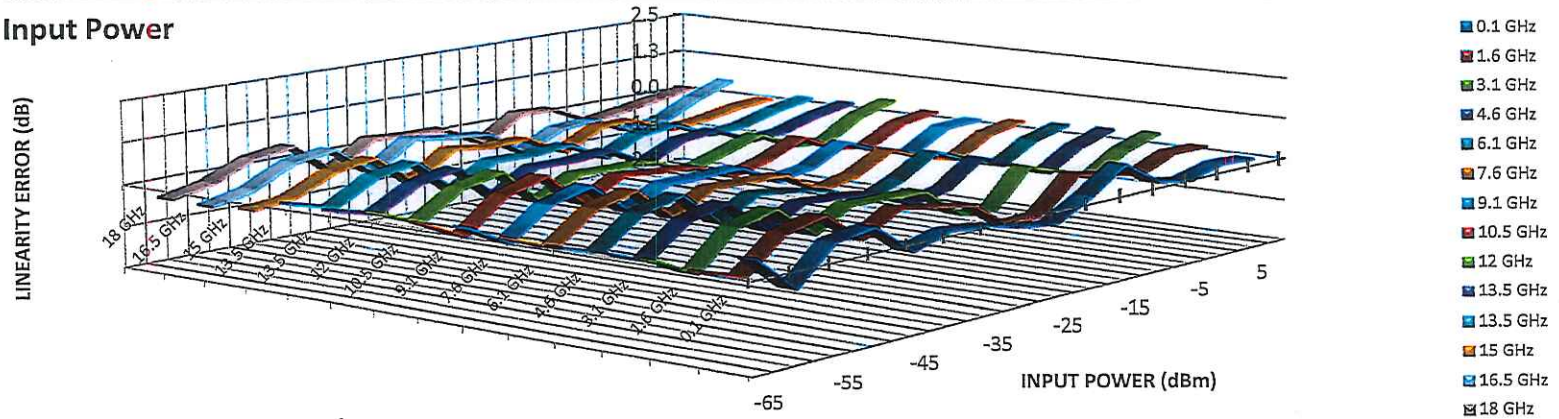
Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
0.1 GHz	INTERCEPT (mV)	749	109	147	207	258	299	352	400	447	495	551	603	650	693	748	799	Measured Value (mV)
	SLOPE (mV/dB)	9.94	4	-7	4	6	-4	0	-1	-4	-5	0	7	0	-2	1	0	Error (mV)
			0.41	-0.66	0.39	0.56	-0.37	-0.03	-0.12	-0.39	-0.53	0.04	0.74	0.01	-0.17	0.10	0.04	LINEARITY ERROR (dB)
1.6 GHz	INTERCEPT (mV)	749	111	156	215	266	306	356	406	465	509	565	604	651	693	751	800	Measured Value (mV)
	SLOPE (mV/dB)	9.79	-2	-5	4	7	-2	4	2	0	-8	-7	2	0	-2	3	2	Error (mV)
			-0.17	-0.54	0.43	0.70	-0.23	0.44	0.24	0.05	-0.78	-0.71	0.23	0.03	-0.17	0.26	0.24	LINEARITY ERROR (dB)
3.1 GHz	INTERCEPT (mV)	747	109	151	211	263	302	356	408	465	508	543	603	649	693	749	801	Measured Value (mV)
	SLOPE (mV/dB)	9.83	0	-7	4	7	-3	3	3	3	-6	-7	3	0	-5	2	5	Error (mV)
			-0.05	-0.67	0.38	0.69	-0.29	0.35	0.30	0.27	-0.64	-0.75	0.30	-0.04	-0.48	0.15	0.47	LINEARITY ERROR (dB)
4.6 GHz	INTERCEPT (mV)	748	109	153	211	263	302	357	408	463	507	543	604	649	693	749	801	Measured Value (mV)
	SLOPE (mV/dB)	9.82	0	-5	4	7	-4	2	1	0	-5	-3	4	0	-5	1	4	Error (mV)
			-0.04	-0.51	0.38	0.68	-0.37	0.21	0.14	0.02	-0.52	-0.32	0.39	-0.04	-0.52	0.09	0.42	LINEARITY ERROR (dB)
6.1 GHz	INTERCEPT (mV)	747	109	155	212	264	302	356	406	462	506	542	604	649	694	748	800	Measured Value (mV)
	SLOPE (mV/dB)	9.8	-1	-5	4	7	-3	3	1	-1	-6	-2	4	-1	-5	1	4	Error (mV)
			-0.10	-0.48	0.40	0.71	-0.35	0.27	0.14	-0.09	-0.62	-0.23	0.39	-0.07	-0.46	0.12	0.38	LINEARITY ERROR (dB)
7.6 GHz	INTERCEPT (mV)	748	109	153	211	263	302	357	408	466	508	543	603	649	695	750	801	Measured Value (mV)
	SLOPE (mV/dB)	9.83	-1	-5	3	6	-4	2	2	2	-5	-3	3	-2	-4	1	3	Error (mV)
			-0.05	-0.55	0.35	0.65	-0.40	0.24	0.22	0.16	-0.49	-0.29	0.28	-0.16	-0.45	0.15	0.34	LINEARITY ERROR (dB)
9.1 GHz	INTERCEPT (mV)	748	107	150	208	259	300	356	406	464	507	543	603	648	694	749	800	Measured Value (mV)
	SLOPE (mV/dB)	9.87	1	-6	3	6	-4	2	2	2	-4	-2	3	-1	-4	2	2	Error (mV)
			0.08	-0.61	0.27	0.59	-0.40	0.18	0.17	0.21	-0.40	-0.23	0.33	-0.15	-0.43	0.17	0.22	LINEARITY ERROR (dB)
10.6 GHz	INTERCEPT (mV)	748	109	151	210	262	301	356	406	463	507	543	603	647	695	749	800	Measured Value (mV)
	SLOPE (mV/dB)	9.85	0	-6	3	7	-4	2	1	1	-5	-2	3	-2	-4	2	3	Error (mV)
			0.01	-0.62	0.35	0.67	-0.36	0.24	0.13	0.06	-0.46	-0.17	0.31	-0.22	-0.40	0.15	0.31	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV)	751	109	154	210	265	301	357	408	466	509	552	605	649	699	753	806	Measured Value (mV)
	SLOPE (mV/dB)	9.89	1	-4	4	6	-5	1	0	1	-5	-1	2	-3	-4	2	5	Error (mV)
			0.11	-0.39	0.37	0.60	-0.50	0.09	0.05	0.05	-0.48	-0.13	0.24	-0.32	-0.43	0.21	0.52	LINEARITY ERROR (dB)
13.5 GHz	INTERCEPT (mV)	761	111	165	214	269	309	362	412	463	507	562	613	659	709	762	814	Measured Value (mV)
	SLOPE (mV/dB)	9.99	0	-3	3	5	-6	1	1	2	-4	1	2	-3	-2	1	3	Error (mV)
			-0.01	-0.33	0.31	0.52	-0.58	0.13	0.10	0.20	-0.42	0.10	0.20	-0.33	-0.24	0.08	0.27	LINEARITY ERROR (dB)
15 GHz	INTERCEPT (mV)	760	116	166	220	271	311	365	416	466	509	554	614	656	708	760	810	Measured Value (mV)
	SLOPE (mV/dB)	9.86	-4	-2	3	5	-5	3	2	2	-4	2	2	-3	-2	0	1	Error (mV)
			-0.36	-0.23	0.30	0.49	-0.49	0.33	0.18	0.22	-0.39	0.18	0.18	-0.31	-0.21	0.00	0.10	LINEARITY ERROR (dB)
16.5 GHz	INTERCEPT (mV)	761	118	168	221	274	314	371	419	467	509	565	613	657	707	762	815	Measured Value (mV)
	SLOPE (mV/dB)	9.85	-4	-2	4	6	-4	4	3	2	-6	-1	0	-5	-4	1	5	Error (mV)
			-0.45	-0.20	0.39	0.56	-0.36	0.45	0.28	0.20	-0.60	-0.06	0.02	-0.52	-0.39	0.13	0.55	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	759	117	168	222	272	312	369	417	468	509	565	614	657	708	759	808	Measured Value (mV)
	SLOPE (mV/dB)	9.82	-4	-2	3	5	-5	3	2	2	-6	3	2	-4	-2	0	2	Error (mV)
			-0.42	-0.17	0.33	0.51	-0.49	0.29	0.20	0.18	-0.48	0.28	0.22	-0.37	-0.22	-0.03	0.15	LINEARITY ERROR (dB)
	Average Slope (mV)	9.9																
	Flatness		0.5	1.1	0.8	0.8	0.8	1	0.9	1	0.7	1.1	0.6	0.5	0.8	0.7	0.8	
			107	147	207	258	299	352	400	447	495	543	603	647	693	748	799	
			117	168	223	274	314	371	419	467	509	565	614	658	708	762	815	
			100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	


Video Out VS Input Power
VIDEO OUTPUT (mV)
900
800
700
600
500
400
300
200
100
0
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
INPUT POWER (dBm)
0.1 GHz
1.6 GHz
3.1 GHz
4.6 GHz
6.1 GHz
7.6 GHz
9.1 GHz
10.5 GHz
12 GHz
13.5 GHz
15 GHz
16.5 GHz
18 GHz
Linearity Error VS Input Power
LINEARITY ERROR (dB)
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
INPUT POWER (dBm)
0.1 GHz
1.6 GHz
3.1 GHz
4.6 GHz
6.1 GHz
7.6 GHz
9.1 GHz
10.5 GHz
12 GHz
13.5 GHz
13.5 GHz
15 GHz
16.5 GHz
18 GHz

Video Out VS Input Power



Linearity Error VS Input Power



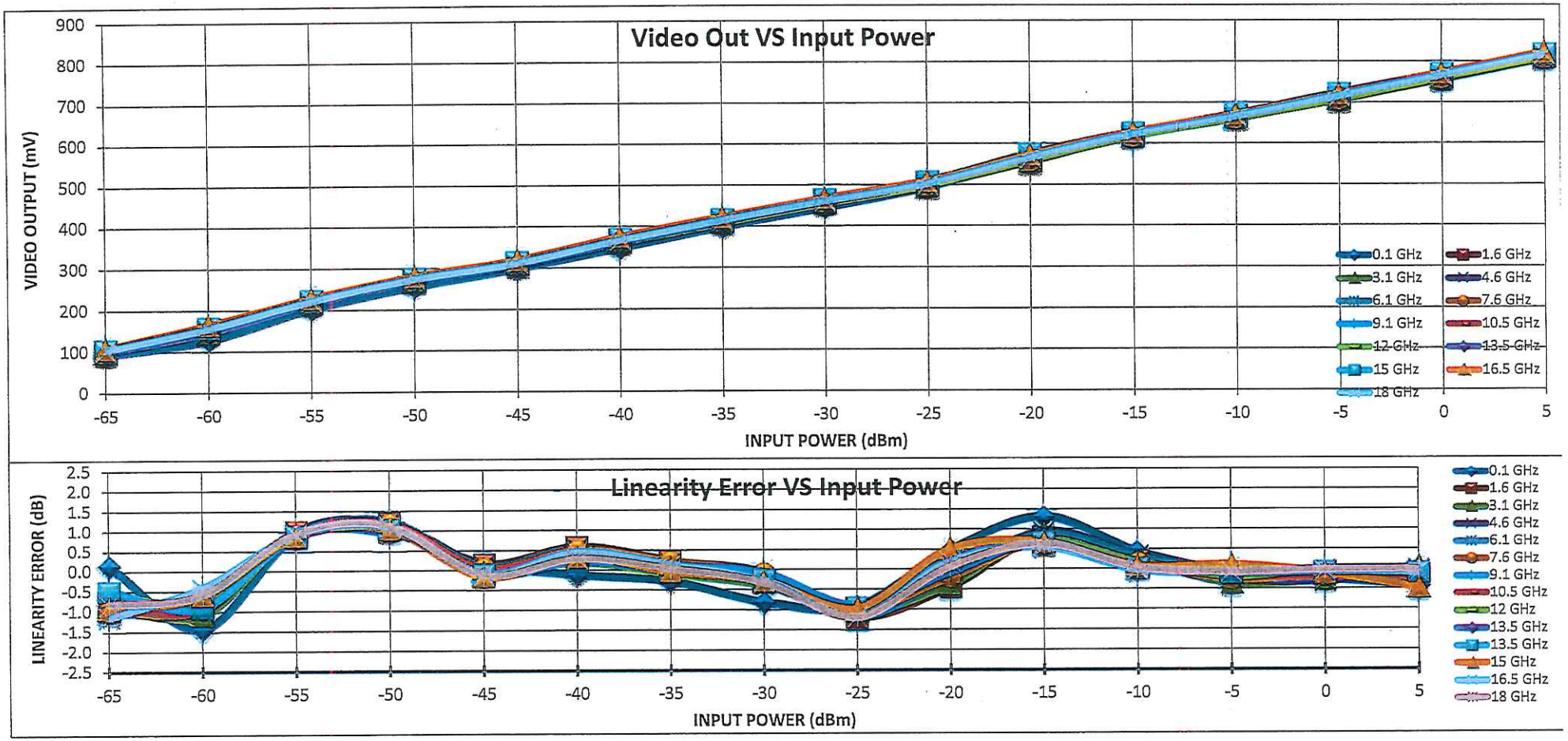
APPENDIX C

LOG TRANSFER VS FREQUENCY
MODEL: SDLVA-100M18G-CW-70-MAH
TESTED BY: Rcombs
DATE: 2-14-17
SERIAL NO:PL20376

Test Temp: -40C
Graph 2B

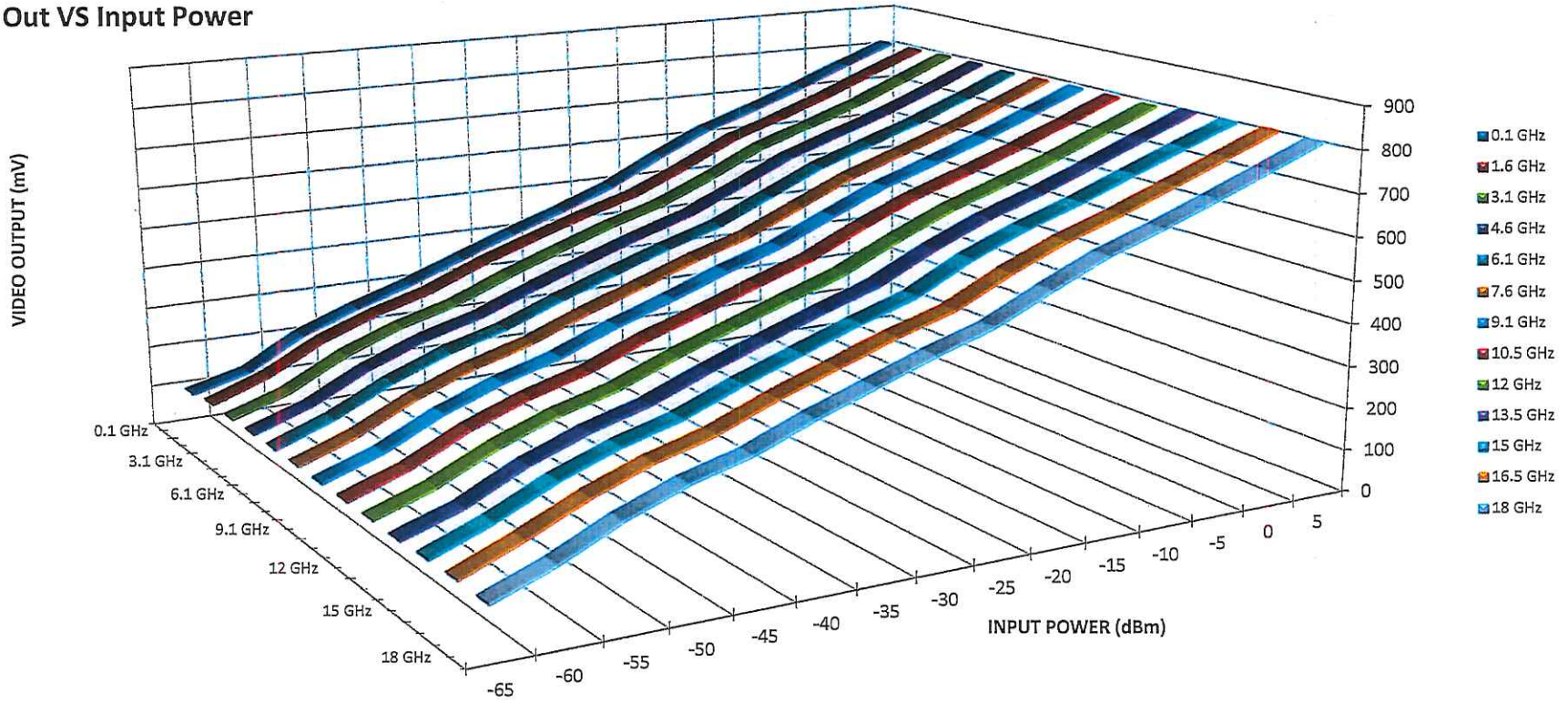
PLANAR MONOLITHICS INDUSTRIES
7311-F GROVE ROAD, FREDERICK, MD 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
URL: WWW.PMI-RF.COM
EMAIL: SALES@PMI-RF.COM

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
0.1 GHz	INTERCEPT (mV)	763	93	128	204	256	300	349	398	445	495	557	622	669	711	761	811	Measured Value (mV)
	SLOPE (mV/dB)	10.3	2	-15	9	10	2	-1	-3	-8	-10	5	14	4	-1	-3	-5	Error (mV)
			0.15	-1.43	0.87	0.95	0.17	-0.12	-0.29	-0.82	-0.93	0.47	1.32	0.43	-0.09	-0.26	-0.44	LINEARITY ERROR (dB)
1.6 GHz	INTERCEPT (mV)	762	101	151	221	273	313	367	416	469	519	567	625	664	710	761	811	Measured Value (mV)
	SLOPE (mV/dB)	10	-10	-10	10	12	2	6	2	-3	-12	-4	8	2	-2	-1	-1	Error (mV)
			-0.96	-1.00	1.01	1.21	0.17	0.59	0.23	-0.25	-1.19	-0.45	0.80	0.20	-0.15	-0.09	-0.11	LINEARITY ERROR (dB)
3.1 GHz	INTERCEPT (mV)	762	101	166	218	271	310	364	412	466	509	567	630	664	708	762	813	Measured Value (mV)
	SLOPE (mV/dB)	10.1	-8	-11	10	12	1	4	2	-1	-10	-4	9	2	-4	-3	0	Error (mV)
			-0.77	-1.09	0.96	1.16	0.06	0.43	0.19	-0.07	-1.04	-0.39	0.91	0.23	-0.37	-0.27	0.05	LINEARITY ERROR (dB)
4.6 GHz	INTERCEPT (mV)	761	101	160	218	272	310	362	411	467	509	565	630	664	709	759	811	Measured Value (mV)
	SLOPE (mV/dB)	10	-8	-9	10	12	0	3	0	-3	-11	-2	9	3	-2	-3	0	Error (mV)
			-0.78	-0.95	0.97	1.19	0.05	0.34	0.04	-0.31	-1.06	-0.15	0.94	0.32	-0.23	-0.31	-0.05	LINEARITY ERROR (dB)
6.1 GHz	INTERCEPT (mV)	759	103	155	222	276	312	367	413	468	508	565	615	662	707	758	807	Measured Value (mV)
	SLOPE (mV/dB)	9.92	-10	-8	10	12	1	5	1	-3	-12	-2	9	3	-2	-2	-1	Error (mV)
			-1.05	-0.82	0.97	1.24	0.10	0.52	0.12	-0.32	-1.19	-0.19	0.87	0.30	-0.21	-0.23	-0.11	LINEARITY ERROR (dB)
7.6 GHz	INTERCEPT (mV)	760	103	153	221	275	312	366	415	466	501	565	617	662	706	758	808	Measured Value (mV)
	SLOPE (mV/dB)	9.97	-10	-9	9	12	1	6	2	-1	-10	-2	7	1	-3	-2	-1	Error (mV)
			-0.96	-0.93	0.92	1.18	0.05	0.49	0.21	-0.10	-1.01	-0.20	0.68	0.14	-0.26	-0.16	-0.07	LINEARITY ERROR (dB)
9.1 GHz	INTERCEPT (mV)	762	102	152	220	272	311	365	413	461	512	561	619	664	710	761	810	Measured Value (mV)
	SLOPE (mV/dB)	10	-8	-9	9	11	0	4	1	-1	-9	-1	7	2	-2	-2	-2	Error (mV)
			-0.84	-0.91	0.87	1.12	0.01	0.41	0.11	-0.08	-0.93	-0.08	0.71	0.18	-0.22	-0.16	-0.20	LINEARITY ERROR (dB)
10.5 GHz	INTERCEPT (mV)	763	102	151	220	273	311	365	411	458	502	564	620	664	710	760	811	Measured Value (mV)
	SLOPE (mV/dB)	10	-8	-9	9	12	0	4	0	-3	-10	2	8	2	-2	-2	-2	Error (mV)
			-0.83	-0.93	0.92	1.17	0.03	0.41	-0.02	-0.32	-0.95	0.23	0.76	0.17	-0.22	-0.20	-0.20	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV)	761	103	151	218	270	308	361	408	456	498	560	617	662	708	760	811	Measured Value (mV)
	SLOPE (mV/dB)	10	-6	-7	10	11	-1	2	-1	-4	-10	1	7	2	-2	0	0	Error (mV)
			-0.57	-0.73	0.95	1.08	-0.09	0.19	-0.11	-0.40	-1.04	0.05	0.71	0.17	-0.20	-0.02	0.00	LINEARITY ERROR (dB)
13.5 GHz	INTERCEPT (mV)	768	101	145	217	269	305	362	411	460	506	567	622	667	716	766	818	Measured Value (mV)
	SLOPE (mV/dB)	10.2	-5	-9	9	11	-1	2	0	-3	-10	2	7	0	-1	-1	-1	Error (mV)
			-0.49	-0.90	0.88	1.04	-0.10	0.21	-0.05	-0.25	-0.95	0.22	0.66	0.02	-0.11	-0.08	-0.11	LINEARITY ERROR (dB)
15 GHz	INTERCEPT (mV)	771	105	159	224	276	315	370	417	465	509	574	628	671	722	770	817	Measured Value (mV)
	SLOPE (mV/dB)	10.1	-9	-6	9	11	-2	3	0	-3	-10	5	7	1	1	-1	-5	Error (mV)
			-0.92	-0.60	0.88	1.04	-0.15	0.32	-0.04	-0.29	-0.97	0.50	0.67	0.07	0.09	-0.12	-0.48	LINEARITY ERROR (dB)
16.5 GHz	INTERCEPT (mV)	771	106	165	228	280	319	374	421	467	508	572	626	671	720	770	820	Measured Value (mV)
	SLOPE (mV/dB)	10	-11	-4	9	11	-1	5	1	-3	-12	2	6	0	-1	-1	-1	Error (mV)
			-1.13	-0.42	0.91	1.09	-0.08	0.46	0.14	-0.28	-1.18	0.19	0.57	-0.02	-0.09	-0.07	-0.09	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	766	105	156	223	275	312	367	416	462	503	566	622	668	719	765	817	Measured Value (mV)
	SLOPE (mV/dB)	10	-8	-6	10	11	-1	3	0	-3	-12	1	5	0	-1	0	0	Error (mV)
			-0.82	-0.58	0.95	1.14	-0.11	0.29	0.02	-0.33	-1.19	0.07	0.64	0.03	-0.07	-0.03	-0.01	LINEARITY ERROR (dB)
	Average Slope (mV)	10.1																
	Flatness		0.7	1.8	1.2	1.2	0.9	1.3	1.1	1.1	0.7	0.9	0.5	0.5	0.7	0.7	0.7	
			93	128	204	256	300	349	398	445	495	557	617	662	707	756	807	
			108	165	228	280	319	374	421	467	509	574	626	671	722	770	820	
			100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	

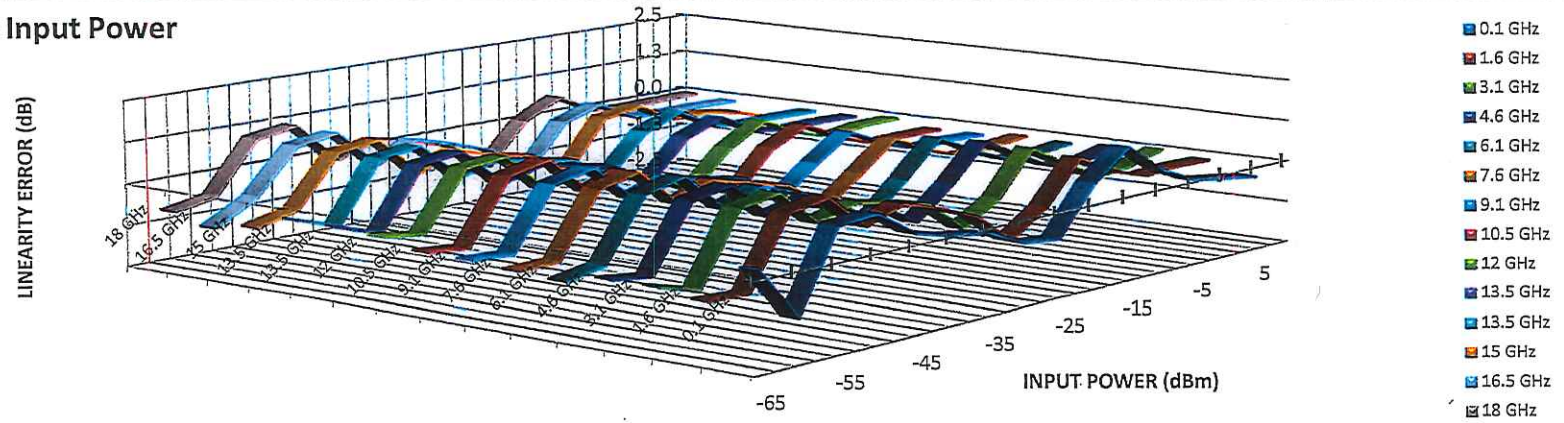

Video Out VS Input Power
VIDEO OUTPUT (mV)
900
800
700
600
500
400
300
200
100
0
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
INPUT POWER (dBm)
0.1 GHz
1.6 GHz
3.1 GHz
4.6 GHz
6.1 GHz
7.6 GHz
9.1 GHz
10.5 GHz
12 GHz
13.5 GHz
15 GHz
16.5 GHz
18 GHz

Linearity Error VS Input Power
LINEARITY ERROR (dB)
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
INPUT POWER (dBm)
0.1 GHz
1.6 GHz
3.1 GHz
4.6 GHz
6.1 GHz
7.6 GHz
9.1 GHz
10.5 GHz
12 GHz
13.5 GHz
13.5 GHz
15 GHz
16.5 GHz
18 GHz

Video Out VS Input Power



Linearity Error VS Input Power



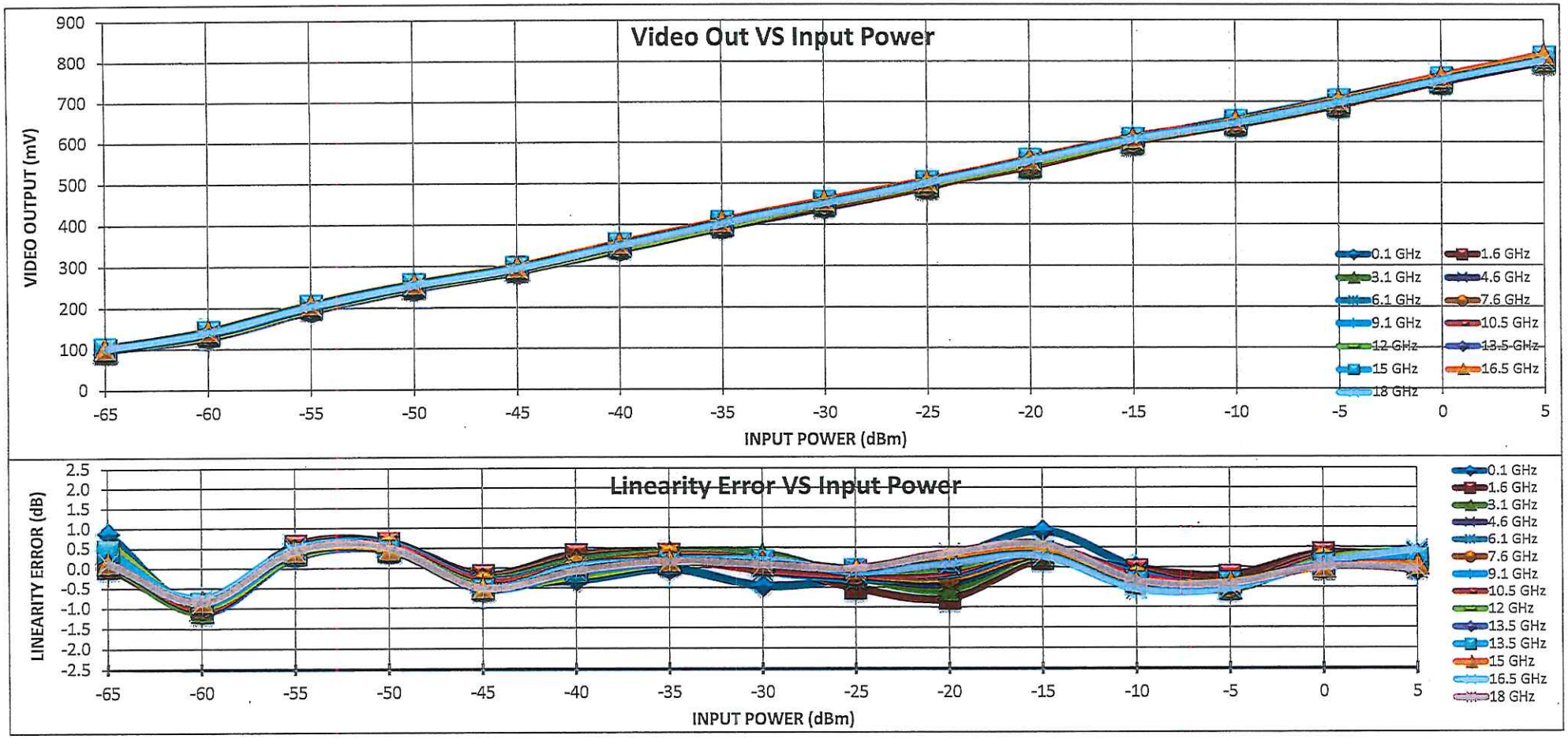
APPENDIX C

LOG TRANSFER VS FREQUENCY
MODEL: SDLVA-100M18G-CW-70-MAH
TESTED BY: Rcombs
DATE: 2-14-17
SERIAL NO: PL20376

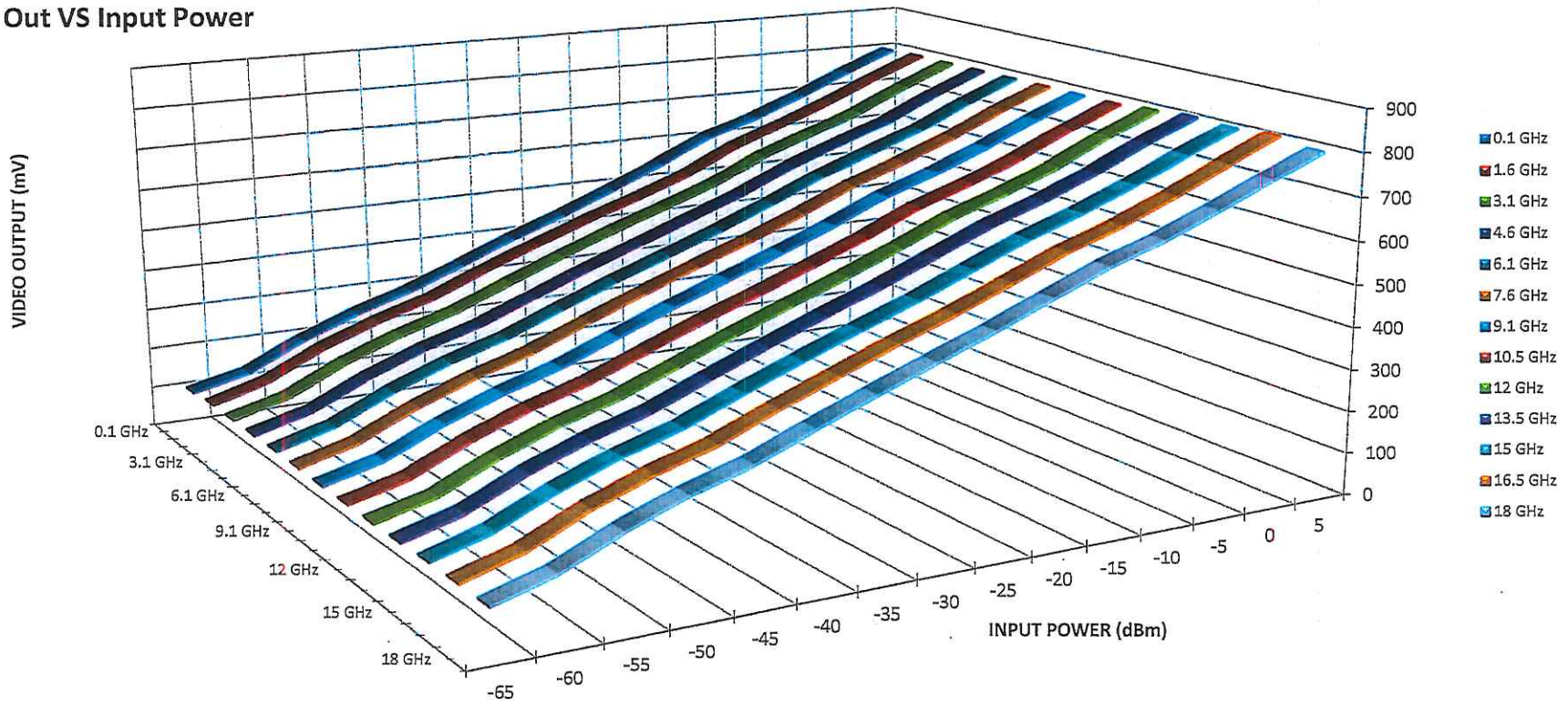
Test Temp: +85C
Graph 2C

PLANAR MONOLITHICS INDUSTRIES
7311-F GROVE ROAD, FREDERICK, MD 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
URL: WWW.PMI-RF.COM
EMAIL: SALES@PMI-RF.COM

Frequency			-65	-60	-55	-50	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5	RF Input Power (dBm)
0.1 GHz	INTERCEPT (mV)	747	99	130	194	246	289	340	393	439	492	541	605	643	691	748	797	Measured Value (mV)
	SLOPE (mV/dB)	10.1	9	-11	3	5	-3	-3	0	-5	-3	2	9	0	-3	1	-1	Error (mV)
			0.88	-1.06	0.29	0.45	-0.31	-0.32	-0.03	-0.46	-0.27	0.18	0.91	-0.01	-0.25	0.08	-0.07	LINEARITY ERROR (dB)
1.6 GHz	INTERCEPT (mV)	748	103	143	208	259	299	354	408	461	505	561	601	649	695	751	798	Measured Value (mV)
	SLOPE (mV/dB)	9.93	0	-10	6	6	-2	3	3	1	-5	-8	2	-1	-2	3	2	Error (mV)
			0.05	-0.97	0.58	0.64	-0.18	0.33	0.33	0.10	-0.53	-0.78	0.20	-0.08	-0.22	0.33	0.19	LINEARITY ERROR (dB)
3.1 GHz	INTERCEPT (mV)	746	102	139	205	258	298	351	402	451	498	549	600	645	691	748	799	Measured Value (mV)
	SLOPE (mV/dB)	9.94	1	-11	5	6	-3	2	4	3	-2	-6	3	-2	-6	2	3	Error (mV)
			0.13	-1.07	0.46	0.60	-0.27	0.20	0.38	0.34	-0.25	-0.59	0.29	-0.16	-0.56	0.18	0.30	LINEARITY ERROR (dB)
4.6 GHz	INTERCEPT (mV)	746	101	139	202	254	295	348	400	447	498	549	600	645	691	748	802	Measured Value (mV)
	SLOPE (mV/dB)	9.97	3	-10	5	6	-3	1	3	0	-2	-4	3	-1	-6	2	4	Error (mV)
			0.28	-0.97	0.45	0.61	-0.29	0.05	0.26	0.03	-0.24	-0.39	0.32	-0.15	-0.55	0.21	0.36	LINEARITY ERROR (dB)
6.1 GHz	INTERCEPT (mV)	747	101	139	203	256	296	349	400	447	498	549	601	646	692	749	800	Measured Value (mV)
	SLOPE (mV/dB)	9.97	3	-9	5	6	-3	1	2	-1	-3	-2	4	-2	-5	2	3	Error (mV)
			0.25	-0.94	0.48	0.62	-0.31	0.07	0.24	-0.09	-0.31	-0.22	0.38	-0.17	-0.52	0.20	0.31	LINEARITY ERROR (dB)
7.6 GHz	INTERCEPT (mV)	748	101	139	202	254	294	348	401	450	498	549	601	646	693	750	801	Measured Value (mV)
	SLOPE (mV/dB)	10	3	-10	4	6	-4	1	3	2	-2	-3	3	-2	-5	2	3	Error (mV)
			0.29	-0.99	0.40	0.56	-0.35	0.05	0.30	0.17	-0.19	-0.27	0.32	-0.24	-0.51	0.20	0.26	LINEARITY ERROR (dB)
9.1 GHz	INTERCEPT (mV)	748	100	135	198	250	292	346	396	447	498	549	601	646	693	750	800	Measured Value (mV)
	SLOPE (mV/dB)	10.1	5	-10	3	5	-4	1	2	1	-1	-2	4	-2	-5	2	2	Error (mV)
			0.52	-0.99	0.27	0.49	-0.36	-0.09	0.21	0.13	-0.11	-0.17	0.38	-0.21	-0.47	0.23	0.16	LINEARITY ERROR (dB)
10.5 GHz	INTERCEPT (mV)	746	99	133	197	248	291	345	395	444	493	544	600	643	691	748	799	Measured Value (mV)
	SLOPE (mV/dB)	10	6	-10	3	5	-3	-1	2	-1	-2	-1	5	-2	-5	2	3	Error (mV)
			0.59	-1.00	0.33	0.54	-0.34	-0.13	0.16	-0.07	-0.20	-0.12	0.47	-0.24	-0.47	0.21	0.27	LINEARITY ERROR (dB)
12 GHz	INTERCEPT (mV)	751	99	134	197	249	291	346	398	448	497	549	601	646	695	753	803	Measured Value (mV)
	SLOPE (mV/dB)	10.1	7	-8	3	5	-4	-2	1	1	-1	0	4	-4	-6	2	4	Error (mV)
			0.65	-0.93	0.31	0.48	-0.44	-0.22	0.11	0.07	-0.09	-0.03	0.40	-0.35	-0.56	0.19	0.40	LINEARITY ERROR (dB)
13.5 GHz	INTERCEPT (mV)	760	101	139	203	254	296	350	404	455	504	557	610	654	705	760	810	Measured Value (mV)
	SLOPE (mV/dB)	10.2	5	-9	4	4	-5	-1	1	2	-1	1	4	-4	-4	1	2	Error (mV)
			0.44	-0.86	0.36	0.44	-0.53	-0.11	0.11	0.17	-0.06	0.14	0.39	-0.37	-0.38	0.06	0.21	LINEARITY ERROR (dB)
15 GHz	INTERCEPT (mV)	758	103	144	207	258	299	355	406	457	505	558	611	653	704	758	808	Measured Value (mV)
	SLOPE (mV/dB)	10.1	1	-8	4	5	-5	1	2	2	0	2	4	-4	-4	0	1	Error (mV)
			0.15	-0.83	0.41	0.46	-0.50	0.08	0.17	0.16	-0.05	0.23	0.39	-0.36	-0.37	0.00	0.07	LINEARITY ERROR (dB)
16.5 GHz	INTERCEPT (mV)	759	103	144	208	259	299	355	407	458	505	558	610	653	705	759	814	Measured Value (mV)
	SLOPE (mV/dB)	10.1	1	-8	5	5	-5	0	2	2	-1	1	3	-5	-5	1	4	Error (mV)
			0.13	-0.76	0.50	0.51	-0.51	0.05	0.17	0.20	-0.12	0.09	0.28	-0.55	-0.53	0.10	0.43	LINEARITY ERROR (dB)
18 GHz	INTERCEPT (mV)	752	103	143	206	258	299	351	403	452	501	555	607	649	698	752	801	Measured Value (mV)
	SLOPE (mV/dB)	10	2	-8	4	5	-5	-1	1	1	0	4	5	-3	-4	0	0	Error (mV)
			0.16	-0.85	0.43	0.51	-0.51	-0.07	0.15	0.07	-0.03	0.35	0.56	-0.33	-0.41	0.01	-0.05	LINEARITY ERROR (dB)
	Average Slope (mV)	10.0																
	Flatness		0.2	0.8	0.7	0.6	0.5	0.8	0.7	0.9	0.7	0.8	0.5	0.5	0.7	0.6	0.9	
			99	130	194	246	289	340	393	439	492	541	600	643	691	748	797	
			103	145	208	259	299	355	407	458	505	558	611	654	705	760	814	
			100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	


Video Out VS Input Power
VIDEO OUTPUT (mV)
900
800
700
600
500
400
300
200
100
0
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
INPUT POWER (dBm)
0.1 GHz
1.6 GHz
3.1 GHz
4.6 GHz
6.1 GHz
7.6 GHz
9.1 GHz
10.5 GHz
12 GHz
13.5 GHz
15 GHz
16.5 GHz
18 GHz
Linearity Error VS Input Power
LINEARITY ERROR (dB)
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-65
-60
-55
-50
-45
-40
-35
-30
-25
-20
-15
-10
-5
0
5
INPUT POWER (dBm)
0.1 GHz
1.6 GHz
3.1 GHz
4.6 GHz
6.1 GHz
7.6 GHz
9.1 GHz
10.5 GHz
12 GHz
13.5 GHz
13.5 GHz
15 GHz
16.5 GHz
18 GHz

Video Out VS Input Power



Linearity Error VS Input Power